

AGENTS FOR THE SALE OF MADRAS GOVERNMENT PUBLICATIONS

IN INDIA

The Superintendent, NAZAIR KANUN HIND PRESS, Allahabad.
THE BANGALORE PRINTING AND PUBLISHING Co., LTD., Bangalore City.
M. C. KOTHARI, Bookseller, Publisher and Newspaper Agent, Raopur Road, Baroda.

R. SUNDER PANDURANG, Kalbadevi Road, Bombay.
D. B. TARAPOREVALA SONS & Co., Bombay.

THACKER & Co. (LTD.), Bombay.

N. S. WAGLE, Circulating Agent and Bookseller, No. 6, Tribhuwan Road, Girgaon, Bombay.

THE BURMA BOOK CLUB (LTD.), 240-A, Merchant Street, Rangoon, Burma.

THE BOOK COMPANY, Calcutta.

BUTTERWORTH & Co. (LTD.), 6, Hastings Street, Calcutta.

R. CAMBRAI & Co., Calcutta.

THACKER, SPINK & Co., 3, Esplanade East, Calcutta.

SRI SHANKAR KARNATAKA PUSTAKA BHANDARA, Malamaddi, Dharwar.

THE DOMINION BOOK CONCERN, Booksellers, Publishers, Main Road, Hyderabad.

RAMAKERISHNA & SONS, Lahore.

The Proprietor, THE PUNJAB SANSKRIT BOOK DEPOT, Motilal Banarsi das, Saidmitha Street, Lahore.

THE UPPER INDIA PUBLISHING HOUSE (LTD.), Lucknow.

THE CHRISTIAN LITERATURE SOCIETY FOR INDIA, Post Box No. 501, P.T., Madras.

CITY BOOK Co., Post Box No. 283, Madras.

HIGGINBOTHAMS (LTD.), Mount Road, Madras.

THE LAW BOOK DEPOT (LTD.), 15 & 16, Francis Joseph Street, Madras.

S. MURTHY & Co., Madras.

G. A. NATESAN & Co., Madras.

P. R. RAMA IYER & Co., Madras.

P. VARADACHARI & Co., Booksellers, 8, Linga Chetti Street, Madras.

THE UNIVERSAL PUBLISHING Co., Bezwada (Madras).

D. SREE KRISHNAMURTHI, Editor, "Grama Paripalana," Morrispet, Tenali, Guntur (Madras).

E. M. GOPALAKRISHNA KONE, Pudumantapam, Madura (Madras).

THE MODERN STORES, Salem (Madras).

THE SRIVILLIPUTTUR CO-OPERATIVE TRADING UNION (LTD.), Srivilliputtur (Madras).

S. KRISHNASWAMI & Co., Teppakulam Post, Trichinopoly Fort (Madras).

A. VENKATASUBBAN, Law Bookseller, Vellore (Madras).

NIVASARKAR, Manager, "Hitawada," Nagpur.

THE INTERNATIONAL BOOK SERVICE, Booksellers, etc., Poona, 4.

MOHANLAL DOSSABHAI SHAH, Books Agent, Publisher and Printer, Rajkot.

THE BOOKLOVERS' RESORT, Booksellers and News Agents, Taikad, Trivandrum.

IN STRAITS SETTLEMENTS

THE FEDERAL RUBBER STAMP Co., Penang.

NOTICE

Official publications may be obtained in the United Kingdom either direct from the office of the High Commissioner for India, India House, Aldwych, London, W.C. 2, or through any bookseller.



THE MADRAS PRESIDENCY

1881-1931

BY

G. T. BOAG, Esq., C.I.E., I.C.S.

MADRAS

PRINTED BY THE SUPERINTENDENT, GOVERNMENT PRESS

PRICE, Rs. 2]

1933

MADRAS PRESIDENCY, 1881—1931.

TABLE OF CONTENTS.

CHAPTER.		PAGE
1 Population	.. .. .. .. ..	1
2 Administration	.. .. .. .. ..	6
3 Legislature	.. .. .. .. ..	34
4 Law and Order	.. .. .. .. ..	38
5 Land Revenue	.. .. .. .. ..	45
6 Other Revenues	.. .. .. .. ..	55
7 Forests	.. .. .. .. ..	61
8 Communications	.. .. .. .. ..	65
9 Trade and Commerce—Development of Ports	.. .. .. .. ..	67
10 Industries	.. .. .. .. ..	70
11 Agriculture, Veterinary and Co-operation	.. .. .. .. ..	85
12 Irrigation	.. .. .. .. ..	97
13 Education	.. .. .. .. ..	106
14 Public Health	.. .. .. .. ..	116
15 Special measures for the benefit of the depressed classes.	.. .. .. .. ..	127
16 Eminent Madrasis	.. .. .. .. ..	136

I. POPULATION.

The population of each of the 26 districts into which the Madras Presidency is divided is given in the following table as recorded at each census since 1881 and the distribution of the population according to religions and according to occupations is given in the two succeeding tables.

N.B.—For the purpose of noting variation the census figures have been corrected for changes in area which occurred during the decade.

Population at each census,

Number and district.

		1881-1891.				1891-1901.			
		1881.	1891.	1901.	1911.	1921.	1931.	Population of 1881.	Population of 1891.
(1)	Ganjam ..	(2)	1,603,301	1,589,477	(4)	1,689,142	(5)	1,855,662	(6)
1. Ganjam ..	..	1,603,301	1,589,477	1,689,142	1,870,826	2,411,619	1,499,828	89,649	1,558,477
2. Vizagapatam ..	..	1,780,468	1,948,211	2,082,662	2,281,874	3,607,948	1,790,175	153,086	99,666
3. Godavari ..	..	1,780,613	1,951,616	2,143,917	1,445,937	1,471,883	1,893,836	257,809	1,939,440
4. East Godavari ..	..	..	..	..	..	1,920,482	..	..	..
** Agency ..	..	951,875	1,291,244	1,333,944	1,677,519	1,486,368	1,012,313	251,931	1,308,449
5. Guntur ..	..	1,518,480	1,855,682	2,164,803	2,133,314	1,254,208	1,518,480	307,102	1,815,582
6. Nellore ..	..	1,220,236	1,465,736	1,496,387	1,228,152	1,385,553	1,486,222	1,220,286	1,463,736
7. Bellary ..	..	1,121,038	1,272,072	1,391,247	893,998	887,929	949,397	1,221,038	1,272,072
8. Chittor ..	..	709,306	817,811	872,056	986,199	914,890	1,024,961	678,661	1,139,260
9. Kurnool ..	..	900,126	917,214	969,436	882,370	966,774	721,654	778,542	880,950
10. Anantapur ..	..	708,549	788,244	963,223	965,917	1,050,411	604,580	103,969	60,626
11. Madras ..	..	405,848	452,518	609,346	618,650	626,911	647,230	405,818	46,670
12. Chingleput ..	..	981,381	1,136,928	1,312,122	1,406,008	1,493,058	1,655,115	981,381	165,547
13. Cuddalore ..	..	..	..	..	1,238,722	1,269,157	1,477,103	1,202,928	109,194
14. North Arcot ..	..	1,817,814	2,180,487	2,207,712	1,980,960	2,056,694	1,822,873	357,614	2,114,487
15. South Arcot ..	..	1,659,595	1,982,591	2,204,974	1,766,830	2,112,034	2,043,972	1,592,915	2,268,989
16. Tirumala ..	..	1,687,690	2,004,839	2,021,752	2,116,584	2,219,848	2,445,064	1,657,690	2,186,839
17. Coimbatore ..	..	1,814,738	2,163,361	2,345,894	2,362,666	2,320,085	2,441,507	1,815,723	2,162,861
18. Tanjore ..	..	2,150,333	2,248,114	2,362,859	2,326,265	2,326,920	2,310,019	97,098	2,288,114
19. Trichinopoly ..	..	2,125,038	1,372,717	1,444,770	2,107,929	1,902,838	1,913,245	1,215,684	2,172,717
20. Madras ..	..	2,168,680	2,608,404	2,831,280	1,932,882	2,007,082	2,165,447	2,068,680	2,039,724
21. Ramanad ..	..	..	..	..	1,678,453	1,721,837	1,838,955	..	2,229,876
22. Thiruvelli ..	..	1,689,747	1,916,096	2,059,607	1,790,619	1,901,836	2,016,907	1,699,747	2,16,348
23. Nilgiris ..	..	91,034	99,797	111,437	118,618	126,519	169,330	91,034	8,768
24. Malabar ..	..	2,365,036	2,662,565	2,790,281	3,015,119	3,098,871	3,533,944	2,365,036	287,550
25. Arjengo ..	..	..	..	..	6,572	9,918	(Included in Tinnevelly)	..	..
26. South Kanara ..	..	969,514	1,066,081	1,134,713	1,195,227	1,247,388	965,567	969,514	1,086,081
Total ..	..	30,868,504	35,630,440	38,199,162	41,405,404	42,318,985	46,710,107	(a) 30,827,113	4,803,327

(a) The total population of 1881 in column (8) is less than the total of column (2) because in 1881 the Native States of Bangalore and Sandur were treated as part of Kurnool and Bellary districts respectively while in 1891 they have been shown separately as Feudatory states.

(b) The total population of 1891 in column (10) is less than the total of column (3) as in 1891. The Laccadive Islands were included in Malabar while in 1901 they were treated separately.

I—contd.

N.B.—For the purpose of noting variation the census figures have been corrected for changes in area which occurred during the decade.

Remarks.

Number and district,	1901-1911.			1911-1921.			1921-1931.		
	Population of 1901.	Variation.	Population of 1911.	Variation.	Population of 1911.	Variation.	Population of 1921.	Variation.	
1. Ganium ..	(12)	(13)	(14)	(15)	(16)	(17)	(16)	(15)	(15)
1. Ganjam ..	1,688,754	181,072	1,870,826	—	35,264	2,168,460	243,159	213,159	213,159
2. Vizagapatam ..	2,082,662	87,008	2,187,497	44,377	31,229	2,145,906	41,519	41,519	41,519
2. Godavari ..	1,286,119	159,838	1,446,937	24,906	..	..	1,673,988	246,614	246,614
3. East Godavari ..	..	..	..	..	..	..	1,051,442	171,614	171,614
4. West Godavari ..	1,351,650	226,969	1,569,692	—	63,334	1,081,872	172,336	172,336	172,336
5. Agency ..	1,744,138	263,387	1,987,635	136,779	..	..	..	..	..
6. Kistna ..	1,990,356	206,916	1,697,561	112,023	1,809,674	226,086	1,009,669	1,009,669	1,009,669
7. Nellore ..	1,274,881	63,321	1,322,452	57,401	1,396,563	1,396,563	1,468	1,468	1,468
8. Cuddapah ..	880,080	13,918	893,938	6,019	887,929	914,890	110,971	110,971	110,971
9. Kurnool ..	872,070	63,129	935,259	—	20,389	..	..	..	..
10. Bellary ..	947,214	229,222	939,436	—	107,066	863,370	107,404	107,404	107,404
11. Anantapur ..	933,757	29,466	963,223	—	7,306	955,117	94,191	94,191	94,191
12. Madras ..	509,346	9,314	518,660	8,251	626,911	1,20,919	1,20,919	1,20,919	1,20,919
13. Chingleput ..	1,210,106	95,902	1,406,008	87,050	1,483,068	162,068	1,483,068	1,483,068	1,483,068
14. Chittoor ..	1,172,886	66,856	1,238,218	36,329	1,327,664	1,327,664	1,327,664	1,327,664	1,327,664
15. North Arcot ..	1,760,656	210,394	1,961,484	94,110	2,002,887	265,902	2,002,887	265,902	265,902
16. Salem ..	1,698,482	67,198	2,043,662	63,472	2,135,799	808,73	2,135,799	808,73	808,73
17. Coimbatore ..	1,971,454	137,100	2,116,584	103,284	2,198,083	248,381	2,198,083	248,381	248,381
18. South Arcot ..	2,106,809	286,757	2,365,866	42,481	2,320,085	134,422	2,320,085	134,422	134,422
19. Tanjore ..	1,17,424	117,060	3,02,989	—	36,424	2,320,915	55,005	2,320,915	55,005
20. Tiruchirapally ..	1,965,119	141,910	1,830,147	72,691	1,902,838	10,407	1,902,838	10,407	10,407
21. Madura ..	1,713,188	219,644	1,923,828	83,254	2,007,082	188,866	2,007,082	188,866	188,866
22. Trincomalee ..	1,519,204	139,249	1,667,467	54,380	1,715,87	120,768	1,715,87	120,768	120,768
23. Trincomalee ..	1,688,495	132,124	1,790,619	110,777	1,07,314	139,433	1,07,314	139,433	139,433
24. The Nilgiris ..	1,112,882	67,736	1,18,618	7,901	126,519	42,811	126,519	42,811	42,811
25. Malabar ..	2,786,738	219,381	3,016,999	88,772	3,086,399	436,073	3,086,399	436,073	436,073
26. Anjengo ..	4,517	765	5,672	346	..	..	..	..	..
26. South Kanara ..	1,134,713	60,614	1,19,227	62,141	1,24,873	1,24,873	1,24,873	1,24,873	1,24,873
Total ..	(e) 38,292,864	—	31,75,750	41,405,404	913,561	(d) 42,306,348	—	42,306,348	42,306,348

(c) The total population of 1901 in column (12) exceeds that of column (4) because the former includes the population of (1) Nagar taluk transferred from the Central Provinces and (2) the Laccadive Islands the figures for which were printed separately in 1901 but have been included in those of Malabar in 1911.

(d) The total population of 1921 in column (16) is smaller than that of column (6) as in 1921 the Laccadive Islands were included in Malabar while in 1931 they were treated separately.

MADRAS PRESIDENCY, 1881—1931

II

Population showing principal religions.

Number and religion.	1881.	1891.	1901.	1911.	1921.	1931
1. Hindus ..	28,215,857	31,998,245	34,436,586	36,806,604	37,511,012	41,277,370
2. Muslims ..	1,924,625	2,250,386	2,477,610	2,740,408	2,840,488	3,305,937
3. Christians..	699,700	865,528	1,038,854	1,191,286	1,381,484	1,774,276
4. Buddhists..	1,546	1,036	241	693	1,216	1,359
5. Jains ..	24,962	27,425	27,431	26,995	25,493	31,206
6. Parsis ..	143	246	356	488	529	507
7. Jews ..	30	42	45	71	45	23
8. Brahmos ..	132	64		374	171	(a) 631
9. Theists ..	13					
10. Kodagus ..	2					
11. Animistic ..	..	472,808	641,825	638,463	578,398	(b) 348,763
12. Agnostics ..	1	..	..	
13. Others ..	69	157	118	..	42	..
14. None ..	5	..	..	..	149	..
15. Not stated ..	1,419	14,503	..	..	..	..

(a) Included under 'Hindus.'

(b) Classified now as Tribal.

III

Number and occupation.	1901.	1911.	1921.	1931.
1. Pasture and agriculture ..	27,482,122	29,586,737	30,781,678	33,008,215
2. Fishing and hunting ..	193,697	238,965	245,073	180,311
3. Mines ..	8,002	10,051	1,542	88,629
4. Quarries of hard rocks ..	4,588	5,536	6,030	8,469
5. Salt, etc. ..	..	4,224	2,749	1,716
6. Textiles ..	1,394,080	1,006,286	1,127,114	689,173
7. Hides and skins, etc. ..	163,896	132,232	69,797	46,839
8. Wood ..	529,003	638,284	507,299	319,490
9. Metals ..	210,727	218,594	173,804	92,661
10. Ceramics ..	190,235	249,413	228,753	126,256
11. Chemical products, property so-called and analogous.	92,235	61,162	47,444	47,161
12. Food industries ..	625,535	619,298	545,517	260,398
13. Industries of dress and toilet ..	1,136,065	1,235,184	1,098,146	659,326
14. Furniture industries ..	..	1,825	4,866	2,512
15. Building industries ..	..	607,116	606,841	570,321
16. Construction of means of transport.	..	2,635	3,616	5,904
17. Production and transmission of physical forces (heat, light, electricity, etc.) ..	167	1,166	2,596	3,218
18. Other miscellaneous and undefined industries.	358,722	414,166	435,564	174,053
19. Transport by air ..	..	..
20. Transport by water ..	..	84,132	74,966	48,185
21. Transport by road ..	..	382,742	342,676	317,260
22. Transport by rail ..	..	100,822	116,611	145,851
23. Post Office and telegraph and telephone services.	..	29,661	34,548	29,612
24. Banks, establishments of credit, exchange and insurance.	102,852	114,562	115,818	57,022
25. Brokerage, commission and export.	29,482	19,872	21,088	10,305
26. Trade in textiles ..	..	130,047	98,675	86,204
27. Trade in skins, leather and furs.	..	39,189	50,055	51,920
28. Trade in wood ..	..	32,498	33,423	41,612
29. Trade in metals ..	..	1,175	3,852	10,590
30. Trade in pottery ..	..	41,471	23,621	21,760
				5,993

III—cont.

Number and occupation.	1901.	1911.	1921.	1931.
1. Trade in chemical products ..	7,418	18,136	20,994	5,830
32. Hotels, cafés and restaurants ..	113,550	137,597	143,137	78,059
33. Other trade in foodstuffs ..	1,718,221	1,830,411	1,160,220	542,873
34. Trade in clothing and toilet articles.	16,907	90,079	108,847	14,539
35. Trade in furniture ..	32,059	28,983	26,983	9,944
36. Trade in building materials ..	25,644	25,808	21,516	5,220
37. Trade in means of transport ..	30,124	27,999	25,366	14,254
38. Trade in fuel ..	135,203	86,234	75,189	61,138
39. Trade in articles of luxury, and those pertaining to letters, the arts and sciences.	88,490	88,179	85,474	31,478
40. Trade of other sorts	43,745	89,970	716,151	242,592
41. Army	25,773	16,083	11,762	4,690
42. Navy	23	..	35	15
43. Air force .. .. ..	..	..	..	..
44. Police	221,340	192,722	154,383	56,698
45. Public administration	396,610	353,164	322,237	179,352
46. Religion	221,646	256,639	192,812	109,761
47. Law	36,368	48,580	45,878	19,848
48. Medicine	34,987	89,738	91,789	58,184
49. Instruction	123,745	146,746	129,285	130,205
50. Letters and arts and sciences ..	128,898	139,193	130,124	60,712
51. Persons living principally on their income.	123,409	87,808	69,163	29,977
52. Domestic service	250,004	206,095	191,715	7,690,325
53. Insufficiently described occupations.	679,417	1,527,876	2,110,530	2,762,896
54. Inmates of jails, asylums and alms houses.	11,438	13,424	13,310	15,748
55. Beggars, vagrants and prostitutes.	383,043	260,404	191,524	152,811

2. ADMINISTRATION.

(i) CONSTITUTION OF THE GOVERNMENT.

In 1880 the Government of Madras vested in the Governor and his Council of three, two members of the Indian Civil Service and the Commander-in-Chief of the Madras Army. For the purposes of legislation this Council was increased by the nomination of eight additional members of whom six were non-officials. By the Indian Councils Act of 1892 the number of these additional members was increased, the maximum being now fixed at 20—excluding the Advocate-General. The official majority was retained; but the Council was given the right of interpellation and of discussing, though not of voting, upon budgets. In 1895 the Madras Army passed under the control of the Central Government; the Madras Commander-in-Chief's post was abolished and he vacated his place on the Executive Council. By the Indian Councils Act of 1909 the Legislative Council was still further enlarged. The number of additional members was now fixed at 42, of whom 19 were elected: the official majority was surrendered; members of the Council were accorded the rights of moving resolutions on the budget, of moving resolutions on matters of general public importance and of asking supplementary questions on replies to their interpellations. An Indian Member was appointed to the Executive Council; the Maharaja of Bobbili, Mr. V. Krishnaswami Ayyar, Sir P. S. Sivaswami Ayyar and Sir P. Rajagopala Achariyar held this office in succession.

The present constitution was brought into being by the Government of India Act, 1919. The Legislative Council ceased to be the Executive Council supplemented by a number of additional members appointed or elected for the purpose of making laws; and it became a separate body of which the members of the Executive Council are ex officio members; there are 98 elected members; and not more than 30 nominated members (increased from 25, in 1926 to admit of greater representation of depressed classes) of whom again only 15 may be officials. The number of officials actually nominated has never exceeded 8, and is at present 6 (including the Advocate-General). The Governor no longer presides over the Council, though he has the right to address it: the first two Presidents—Sir P. Rajagopala Achariyar and Mr. L. D. Swamikannu Pillai were appointed by the Governor. Subsequently the Council has elected in succession Mr. L. D. Swamikannu Pillai, Mr. M. Ruthnaswamy, Mr. C. V. S. Narasimha Raju, and Mr. B. Rama-chandra Reddi. The Council has the power of discussing and voting on the budget, of moving resolutions on matters of general public importance, of interpellation and of putting supplementary questions, and of moving the adjournment of the business of the

Council to discuss a definite matter of urgent public importance. Not only was the Legislative Council greatly enlarged and its status improved and its powers increased, but the constitution of the Executive Government also was modified. Provincial subjects were classified either as ' Reserved ' or ' Transferred ' ; ' Reserved ' subjects were as before to be administered by the Governor in Council; but ' Transferred ' subjects were to be administered by the Governor acting with Ministers appointed from, and responsible to, the Legislative Council. A second Indian Member was added to the Executive Council, the names of those who have held this office under the present constitution being Sir Muhammad Habib-ul-lah Sahib, Sir K. Srinivasa Ayyangar, Sir C. P. Ramaswami Ayyar, Sir Mahomed Usman Sahib, and Sir M. Krishnan Nayar.

At the general elections held in 1920 and 1923 the Justice party obtained a majority of the seats and the leaders of that party were called upon to form the ministry. The first ministry consisted of: the Raja of Panagal, Sir K. Venkata Reddi Nayudu, and Diwan Bahadur A. Subbarayalu Reddiyar, who was succeeded after six months by Sir A. P. Patro, and the second consisted of the Raja of Panagal, Sir A. P. Patro and Sir T. N. Sivagnanam Pillai.

At the election of 1926 the Congress party obtained the largest number of seats but declined to accept office and a ministry consisting of Doctor Subbarayan, Messrs. Arogyaswami Mudaliyar and Ranganatha Mudaliyar was formed from among the members returned as Independents. In 1928 Messrs. Muthiah Mudaliyar and Seturatnam Ayyar replaced Messrs. Arogyaswami Mudaliyar and Ranganatha Mudaliyar. At the recent election the Justice party, though it has not a clear majority over all other parties together, has obtained more seats than any of the other parties and has therefore been called upon to supply the present ministry—Messrs. B. Muniswami Nayudu, P. T. Rajan and S. Kumaraswami Reddi.

(ii) THE BOARD OF REVENUE.

1. The Madras Board of Revenue, constituted and regulated by Madras Regulation I of 1803 as modified by Madras Act I of 1894, consisted in 1880 of four senior members of the Indian Civil Service. In 1921 the Commissioner of Income-tax ceased to be a member of the Board, whose number was thus reduced to three, at which it now stands.

2. Most of the duties with which the Board is charged are statutory and are subject to statutory limitations, but some it performs subject to the general control of the Government by virtue of executive orders of the Government delegating specific powers to it. The Board is responsible for seeing that Collectors of districts and their subordinates discharge their duties properly, and that all orders and regulations are properly carried out; and for this purpose it is vested with disciplinary powers. Members

of the Provincial Civil Service are recognized as eligible for these appointments; and the following members of the Provincial Service have served as members of the Board of Revenue:—

Muhammad Aziz-ud-din Sahib Bahadur.

Diwan Bahadur T. Raghavayya, c.s.i.

Khan Bahadur Muhammad Bazl-ul-lah Sahib Bahadur,
C.I.E.

The Districts.

1. For the purpose of revenue administration, the Presidency is divided into districts. The officers of other departments are generally distributed according to the territorial divisions made for the Revenue Department. Each district is divided into two to six divisions; most divisions into taluks; and each taluk into a number of villages. In 1880, there were 21 districts including the City of Madras. Subsequently several districts which were too heavy a charge for a single district officer have been reduced in size; and for similar reasons, the number of divisions and taluks has been increased. The principal changes are enumerated below. The object in every case has been the improvement of administrative facilities, which benefits the people of the district as well as the officials of the Government.

2. I. 5th January 1882.—The district of Anantapur was formed out of the district of Bellary. On the 1st October 1910, the taluk of Kadiri was transferred from the district of Cuddapah to the district of Anantapur.

II. 1st October 1904.—The three districts of Kistna, Nellore and Godavari were reconstituted into four districts of Kistna, Nellore, Godavari and Guntur.

III. 1st June 1910.—A new district called the district of Ramnad was formed out of the districts of Madura and Tinnevelly, viz., seven taluks of the district of Madura and two taluks of the district of Tinnevelly, viz., Sattur and Srivilliputtur which were reconstituted.

IV. 15th November 1910.—The taluk of Karur was transferred from the district of Coimbatore to the district of Trichinopoly.

V. 1st April 1911.—The district of North Arcot with the taluks of Madanapalle and Vayalpad of the Cuddapah district, the taluk of Tiruppattur of the Salem district, the taluk of Tiruvannamalai of South Arcot district was constituted into two districts of Chittoor and North Arcot. On 1st December 1928 certain villages of the Kangundi Zamindari were transferred from the district of North Arcot to the district of Chittoor.

MADRAS PRESIDENCY, 1881—1931

VI. 15th February 1911.—Three Government villages and two shrotriyan villages of the Tiruvallur taluk of the Chingleput district were transferred to the district of Nellore.

VII. 15th April 1925.—Two districts were made out of the district of Kistna—West Godavari and Kistna, the existing district of Godavari being renamed East Godavari.

VIII. 1st July 1927.—The two taluks of Anjengo and Tangasseri were transferred from the district of Malabar to the district of Tinnevelly.

IX. 15th July 1929.—The Mettur district which in 1927 was formed of 9 villages of Bhavani taluk of the Coimbatore district, 5 villages of the Dharmapuri taluk and 5 villages of the Omalur taluk of the Salem district, was from 15th July 1929 treated as a taluk of the Sankari division in the Salem district.

Revenue Divisions and Taluks.

3. I. *Anantapur district*—1st October 1910.—The following redistribution of taluks and divisions in the district of Anantapur were made:—

Revenue divisions.

Dharmavaram—

The Kadiri taluk of the Cuddapah district.

Anantapur—

The Anantapur taluk with 18 villages of the Gooty taluk of the district of Anantapur added to it. Kalyandrug taluk.

Gooty—

The reduced Gooty taluk. Tadpatri taluk.

Penukonda—

Penukonda. Hindupur. Madakasira.

II. *Nellore*—1st October 1910.—Formation of a new taluk called Kovur and the abolition of the office of the Deputy Tahsildar and the reconstitution of divisions.

III. *Kurnool district*—1st October 1910.—Two new taluks named Dhone and Kurnool were formed and the taluk of Ramalkota was abolished. The division of Ramalkota was abolished and the new divisions of Kurnool and Dhone were created. The divisions were reconstituted. On 1st May 1923 the Koilkuntla division was abolished and the Kurnool and Nandyal divisions were reconstituted.

IV. (a) *Bellary*—1st October 1910.—Redistribution of divisions in the district of Bellary (4 divisions and 9 taluks).

(b) (i) On 1st April 1923, the Rayadrug division and the Siruguppa taluk were abolished and the divisions and taluks were reconstituted.

(ii) The Siruguppa taluk was restored with effect from 15th April 1929 with 33 villages of the Adoni taluk, 7 villages of the Alur taluk and 46 villages of the Bellary taluk and placed under the charge of the Revenue Divisional Officer, Bellary.

V. *Vizagapatam*—1st October 1910.—Transfer of Anakapalle Deputy Tahsildar's division from the Narasapatam division to the Vizagapatam division.

VI. *Godavari*—1st October 1910.—Formation of a new Deputy Tahsildar's office at Bikkavole, the reduction in size of the Deputy Tahsildar's division of Alamur and the taluk of Ramachandrapur.

VII. *Kistna*—1st November 1910.—Redistribution of villages in the taluks of Nuzvid and Gudivada and the formation of a new taluk called Kaikalur.

VIII. *Coimbatore district*—15th November 1910.—Formation of a new taluk and a new division called Gopichettipalaiyam, and redistribution of taluks and divisions. A new taluk named Avanashi was also formed and placed under the charge of the Revenue Divisional Officer, Coimbatore.

IX. *Tinnevelly*—16th January 1911.—Formation of a new taluk called Tiruchendur, formation of a new Deputy Tahsildar's office at Sattankulam in Tiruchendur taluk and redistribution of villages in two taluks, redistribution of divisions and the formation of a new division called the Koilpatti division.

X. *Chingleput*—15th February 1911.—Redistribution of villages in the taluks of Tiruvallur, Ponneri, Conjeeveram and Saidapet.

XI. *Madura district*—1st June 1911.—Jurisdiction of the divisions of Madura and Melur of the Madura district was altered.

XII. *South Kanara*—1st July 1912.—Redistribution of the taluks of Mangalore and Udupi and the formation of a new taluk Karkal under the Revenue Divisional Officer, Coondapoor.

XIII. *Ganjam*—15th October 1912.—Two new taluks called Chatrapur and Aska formed and changes in the Revenue divisions.

XIV. *Salem district*—1st April 1918.—A new taluk called Rasipuram taluk was formed out of the old Salem and Attur taluks in Salem district and placed under the charge of the Revenue Divisional Officer, Namakkal.

XV. *Malabar district*—1924.—Abolition of the Wynad division and redistribution of the divisions of Tellicherry and Calicut.

XVI. *West Godavari*—4th January 1926.—Five taluks were constituted into seven taluks and jurisdiction of Revenue divisional offices was altered.

XVII. *West Godavari*—1st January 1927.—Jurisdiction of Revenue divisions was altered.

XVIII. *South Kanara*—1st January 1928.—Six villages from the Karkal taluk of the Coondapoor division were transferred to Puttur taluk under the Revenue Divisional Officer, Puttur.

XIX. Cuddapah—1st July 1928.—The taluk of Kamalapuram was transferred from Jammalamadugu Revenue division to the Cuddapah Revenue division of the same district.

XX. North Arcot—1st April 1929.—The Tiruvannamalai taluk was divided into Tiruvannamalai and Chengam taluks.

XXI. East Godavari—1st January 1931.—Redistribution of the Revenue divisions and taluks of the East Godavari district.

(iii) DEVELOPMENT OF LOCAL SELF-GOVERNMENT.

(a) Local boards.

In 1880 local administration was governed by Act IV of 1871, the Madras Local Funds Act under which the whole country was divided into circles (one circle or two circles for a district), each circle having a board consisting of the Collector as *ex officio* president and two or three persons owning or occupying lands within the circle with a number of officials appointed by Government, who might not be more than half of the total number of members. All members were nominated by Government. The Madras Local Boards Act V of 1884 introduced many changes, the chief of which were:—

(1) The control over local boards exercised by the Board of Revenue under powers delegated to it by the Government under section 71 of Act IV of 1871 was assumed by Government.

(2) The administration of local affairs was vested in a single district board constituted for each revenue district, consisting of a president and not less than 24 members who might all be appointed by the Governor in Council or might be partly so appointed and partly elected by the members of the taluk boards of the district from among their own members, or, in any part of the district where there was no taluk board, by the union boards and by the tax-payers and inhabitants of such parts of the district. All Revenue Divisional Officers were *ex officio* members.

(3) The proportion of official members was reduced from one-half to one-fourth of the total strength.

(4) Under the old Act the Board had no powers to levy taxes on their own authority but could only administer the funds raised on their account by Government. Under Act V of 1884 the local boards were empowered to levy with the approval of Government any of the taxes authorized by the Act. The president might be elected from among the members of the board if the Governor in Council so directed.

(5) Taluk boards were constituted for divisions of districts and union boards for the larger villages.

District and Taluk boards.—The resources of district and taluk boards were derived from—

(1) a tax not exceeding two annas in the rupee on the annual rent-value of all occupied lands in the districts of Malabar, South Kanara and the Nilgiris and not exceeding one anna in the rupee elsewhere;

- (2) a railway cess of three pies in the rupee on the annual rent-value of lands;
- (3) tolls;
- (4) fees for the use of cart-stands, markets and slaughter-houses, etc.

Duties and responsibilities of district and taluk boards—

- (1) The construction of roads, bridges and other means of communication.
- (2) Construction and maintenance of hospitals, etc.
- (3) The diffusion of education and construction and repair of school houses.
- (4) Sanitation and public health.
- (5) Establishment and maintenance of relief works in times of famine and scarcity.
- (6) Other acts of local public utility calculated to promote the safety, health, comfort or convenience of the people.

Taluk boards.—Taluk boards were formed for each taluk or group of taluks consisting of a president with twelve members who might either all be appointed by the Government or partly appointed and partly elected from among the members of the union boards or elected by the tax-payers and inhabitants of the taluk, one-third of the members being officials. The taluk board's jurisdiction then coinciding with the Revenue Divisional Officer's jurisdiction, this officer was an ex officio member and president of the board. The taluk board funds consisted of one-half of the proceeds of the tax levied by the district board in the taluk board area and transferred to it by the district board, and other fees collected within the area of the latter board such as licence fees for markets, etc. A district board might with the approval of the Governor in Council or should upon his direction transfer any other sums from its fund to the taluk board.

Union boards.—Union boards were constituted for single villages or groups of villages called unions, the members consisting of not less than five persons, the headmen of the villages constituting the union being ex officio members; one of these headmen was appointed chairman; members other than village headmen were either all appointed by the Governor in Council or partly so appointed and partly elected by the tax-payers. The resources of the union board consisted of the proceeds of the house-tax levied in the union and any other sums placed at the disposal of the union by the taluk board.

Duties and responsibilities of the union board—

- (1) The lighting of the public roads.
- (2) The cleaning of the public roads, drains, wells and other public places in the union.
- (3) With the sanction of the Governor in Council the establishment and maintenance of hospitals, dispensaries and schools in the union.

(4) Making and repairing of the roads and drains in the union.

(5) Constructing and repairing of tanks and wells in the union.

(6) Generally doing such things as may be necessary for the preservation of public health.

Madras Act XIV of 1920.—This Act, which consolidated and amended Act V of 1884 as amended by Act VI of 1900, came into force on the 1st of April 1921.

It gave to each class of local boards an independent status and distinguished their funds and functions. The principal changes which it introduced were—

(1) The total number of members of a district board was raised to a maximum of 52 and a minimum of 24, of a taluk board to a maximum of 24 and a minimum of 12; and of a union board to a maximum of 15 and a minimum of 7.

(2) Of the total number of members of any local board, the proportion that should be elected should not be less than three-fourths. The remaining members should be appointed by Government in the case of district boards, by the president, district board, in the case of taluk boards and by the president, taluk board, in the case of union boards.

(3) (a) Collectors ceased to be presidents of district boards (except in the Nilgiris) but they were given extraordinary powers to interfere in cases of emergency (sections 38 and 39).

(b) Divisional officers ceased to be ex officio presidents or even members of taluk boards.

(c) Presidents of taluk boards became ex officio members of the district boards.

(d) Presidents of district boards might be either elected or appointed by the Governor in Council; presidents of taluk boards and unions must be elected.

(4) The taxation provisions were altered with the main object of increasing the resources of local bodies, e.g.—

(a) The levy of profession and companies tax was authorized—also a pilgrim-tax.

(b) The method of fixing house-tax in unions was modified.

(c) In addition to the obligatory land-cess of 1 anna in the rupee of rent value of lands shared equally by district and taluk boards in all districts, all district and taluk boards were given the option to levy an additional land-cess up to a maximum of 3 pies in the rupee of rent value of lands for the general purposes of each district or taluk board.

(5) Local boards were given free hand in framing their budgets.

(6) The railway-cess was abolished.

(7) The Government appointed an officer to inspect and superintend all the operations under the Local Boards Act. (An Inspector of Local Boards was appointed under section 40.)

Village panchayats.—The Village Panchayat Act XV of 1920 authorized the constitution of panchayats in rural areas where there was no union board, with the object of making provision for the administration of village affairs by the villagers themselves and so developing the system of self-government in the rural areas.

Constitution and electorate.—The panchayat was entirely an elective body. The minimum strength was 7; the maximum 15. There were no property restrictions in the franchise. All male residents of the village who were not less than 25 years of age were entitled to vote and to be elected as members of the panchayat. The absence of property qualification gave opportunities to members of the depressed classes. In most villages the voters proceeded on the principle—well recognized in all village common affairs—of each important community being represented on the panchayat.

The functions of the panchayat were—

- (i) construction and maintenance of village roads, culverts, bridges and buildings;
- (ii) lighting of streets and public places;
- (iii) construction of drains and disposal of drainage water and sullage;
- (iv) cleaning of streets, removal of rubbish heaps, jungle growth and prickly-pear, filling in of disused wells, insanitary ponds, pools, ditches, pits or hollows and other improvements of the sanitary condition of the village;
- (v) provision of public latrines and arrangements to clean latrines whether public or private;
- (vi) opening and maintenance of burning ghauts and burial-ground;
- (vii) sinking and repairing of wells, excavation, repair and maintenance of ponds or tanks for supply of water for drinking, washing and bathing purposes, and construction of bathing ghauts;
- (viii) control of cattle-stands, thrashing floors, topes and other communal porambokes;
- (ix) control of chavadis, chatrams, rest-houses, and other property belonging to the villagers in common;
- (x) extension of village-sites and regulation of building;
- (xi) enforcement of vaccination;
- (xii) Registration of births and deaths;
- (xiii) opening and maintenance of village libraries;
- (xiv) control of pounds;
- (xv) village protection; and
- (xvi) other measures of public utility calculated to promote the safety, health, comfort or convenience of the villagers.

Finance.—The Act placed no specific resources at the disposal of the panchayat. No taxation was compulsory; but permissive powers to raise taxes were conferred upon panchayats. The Act mentioned specifically a house-tax and profession-tax and a few unimportant fees, but in addition to these or in lieu of these taxes

and fees the panchayats might propose and obtain sanction for the levy of any other tax or fee which was suitable and convenient for the village community.

The Registrar-General of Panchayats (also Inspector of Local Boards and Municipal Councils) was in charge of the work in connexion with these institutions over the whole Presidency. He dealt direct with the panchayats. In the immediate work of organizing, guiding and supervising panchayats in the district he relied on the assistance of honorary workers, either presidents of local boards or organizers of panchayats.

Direct State aid to panchayats started in 1925–26 with an allotment of Rs. 8,000 for grants to be made to panchayat libraries. The grants are made subject to the condition that the panchayat provides the accommodation and equipment and finds in addition an amount equal to the Government grant either in cash or in the shape of books. The grant was increased to Rs. 10,000 in 1926–27 to Rs. 20,000 in 1927–28 and to Rs. 10,248 in 1928–29.

In the year 1926–27, the experiment was commenced of establishing elementary schools under the management of panchayats in villages with a population of not less than 500 which are not already provided with schools. The Government pay a minimum annual teaching grant of Rs. 180 per school. The panchayat is responsible for providing a school house accessible to all communities and for meeting all other expenditure on the school.

In 1927, Government inaugurated the policy of paying through the Registrar-General of Panchayats direct to panchayats grants for the improvement of village communications and water-supply. The grant in the case of each work represents half its estimated cost, the other half being found by the panchayat in cash or labour.

Act XI of 1930 further amended and consolidated the Madras Local Boards Act, 1920, and the Madras Village Panchayat Act, 1920.

The main changes introduced by the Act are—

- (1) The inclusion of village panchayats within the scope of the Act and the repeal of the Village Panchayat Act, 1920, and the conversion of union boards into panchayats. Panchayats have now become the units of local fund administration.
- * (2) Re-arrangement of taluk board areas. Revenue taluks are to be the unit normally.
- (3) All the members of every local board are to be elected, but seats are reserved for certain communities and for women.
- (4) Members of district boards are to be chosen by direct election.
- (5) The franchise has been extended to every person who is assessed to any tax payable to the local board or to any other local authority in the presidency or to the Local Government or the Government of India.

(6) All offices of presidents of local boards are made elective.

(7) Provision is made for the provincialization of services under local boards.

(8) The provisions relating to taxes and tolls are modified. The rate of land-cess was fixed at one anna and a half in the rupee of the annual rent value of lands in all districts. One-third of the proceeds of the cess was allotted to district boards, another third to taluk boards, one-sixth to panchayat boards and one-sixth to the Village Development Fund.

(9) Provision is made for votes of no-confidence in presidents and vice-presidents.

(10) Provision is made for the supersession of panchayats by the Local Government.

(11) More effective provision is made for the adjudication of disputes between local authorities—power is vested in the Local Government to decide the disputes themselves or to refer them for report to an arbitrator or a board of arbitrators or to a joint committee. The decision of Government is final.

(12) Provision is made for the appointment of a District Panchayat Officer.

(13) Provision is made for the formation of a Village Development Fund (section 114-A).

Among the special features of administration during the last 50 years may be enumerated—

(1) All the members and presidents of local bodies will hereafter be elected.

(2) Government pay Rs. 500 to Rs. 700 per mile towards the proper maintenance of through communications, the rate for the first ten miles round Madras and in municipal areas being Rs. 1,000 per mile. The grant is paid subject to a report on the condition of the road by the Superintending Engineer.

(3) From 1923–24 one-half of the cost of maintenance of second-class roads has been borne by Government subject to the maximum of a fixed amount for the whole district and subject to a report by the Collector of the district on the condition of the roads.

(4) From 1925–26 the Government have been giving grants for the improvement of village communications ordinarily subject to the condition that the local boards find an equal amount for the purpose from their resources or otherwise.

(5) Between 1917 and 1920 the Government took over the management of almost all the district headquarter hospitals in order to improve them and make them up to date so that they might serve as models for the rest of the district.

(6) The service of the District Board Engineers has been provincialized from 1st March 1924. This has involved an expenditure of Rs. 2,20,000 from provincial funds.

(7) On 1st April 1922 veterinary institutions were provincialized involving a cost of Rs. 1,25,000 from provincial funds.

(8) Treasury Deputy Collectors were relieved of the work of auditing local fund accounts and a separate audit department was formed.

(9) During 1928–29, 45 hospitals, and nine dispensaries, from the local boards were taken over by the Government.

(10) Six district boards own open lines of railway, the total length being 275 miles.

(11) *Madras Act, III of 1931.*—Since 1st April 1931 the levy of all tolls within the Presidency and the levy of taxes on motor vehicles by local bodies have been abolished and a provincial tax on motor vehicles has been substituted. Provision is made in the Act for the payment to local bodies of compensation representing their average annual income during the three years ending 31st March 1931 from tolls or vehicle tax on motor vehicles.

The following statements show the number of district boards, taluk boards and union boards and the number of members elected and nominated and also the resources of the boards:—

Particulars showing the number of boards, their strength, etc.

Year.	Number of boards.	Total strength.	Ex- officio.	Nomi- nated.	Elected.	Officials.	No offici
-------	-------------------------	--------------------	-----------------	-----------------	----------	------------	--------------

DISTRICT BOARDS.

1880-81	..	30	..		No particulars available.		
1890-91	..	21	655	78	285	292	203
1900-01	..	21	638	80	250	308	261
1910-11	..	23	696	117	265	314	268
1920-21	..	24	757	121	151	485	146
1930-31	..	25	1,005	127	233	645	..

TALUK BOARDS.

1880-81	..	..	Nil.				
1890-91	..	86	1,118	..	1,118 (b)	..	298
1900-01	..	79	1,100	..	1,100	..	307
1910-11	..	88	1,404	97	989	318 (c)	373
1920-21	..	119 (a)	1,857	116	701	1,040	176
1930-31	..	130	2,479	..	638	1,841	..

UNION BOARDS.

1880-81	..	..	Nil.				
1890-91	..	254	2,395	..	1,548	..	847 (d)
1900-01	..	379	3,563	831	2,732	Nil.	1,117
1910-11	..	390	3,721	832	2,889	Nil.	1,113
1920-21	..	588	5,458	1,038	2,697	1,728	Nil.
1930-31	..	465	5,114	..	1,071	4,073	4

(a) The increase in the number was due to the division of certain taluk boards into smaller units coincident with their component taluks.

(b) Appointment of members of taluk boards continued to be made by Government, but the presidents of district boards exercised as in previous years the power of reappointing the members who had been originally appointed by Government.

(c) System of appointing by election was introduced in 1909–10.

(d) Officials include—
Village officials 611
Others 236

Statement of receipts and expenditure of the Local Boards.

Receipts.	1880-81. (1)	1890-91. (2)	1900-01. (4)
	RS.	RS.	RS.
1. Opening balance	33,83,001	21,61,502	20,52,068
2. Local rates	38,43,358	46,47,693	52,64,603
3. Government contributions	47,510	3,07,273	2,42,502
4. Railways (net receipts) .. .. ..	..	..	2,85,280
5. Debts	55,754	1,03,796	46,06,481
6. Other sources	11,54,039	22,36,349	35,87,395
Grand total ..	<u>84,83,662</u>	<u>94,56,613</u>	<u>1,60,38,309</u>

	1910-11. (5)	1920-21. (6)	1929-30. (7)
	RS.	RS.	RS.
1. Opening balance	16,61,611	1,11,46,773	1,00,46,926
2. Local rates	66,47,170	75,52,295	1,11,39,827
3. Government contributions	4,79,750	9,62,251	1,42,20,653
4. Railways (net receipts)	21,63,125	61,92,128	— 3,52,009
5. Debts	10,93,257	31,26,849	1,30,12,772
6. Other sources	53,99,906	93,28,420	1,68,26,824
Grand total ..	<u>1,74,44,819</u>	<u>3,83,08,716</u>	<u>6,48,94,993</u>

Expenditure.	1880-81. (1)	1890-91. (2)	1900-01. (4)
	RS.	RS.	RS.
1. Education (including primary education)	4,71,970	9,41,253	10,28,629
2. Medical	9,26,577	14,39,619	13,95,435
3. Railways .. .. ..	..	..	1,67,469
4. Total expenditure chargeable to current income .. .. ..	..	..	..
5. Debts .. .. ..	..	94,00,886	47,97,692
6. Total disbursements	48,43,162	72,82,869	1,36,19,061
7. Balance (closing)	36,40,500	21,73,744	24,19,248

	1910-11. (5)	1920-21. (6)	1929-30 (7)
	RS.	RS.	RS.
1. Education (including primary education)	13,51,803	58,30,940	1,12,71,494
2. Medical	20,61,502	29,37,318	34,32,315
3. Railways	2,99,135	4,36,951	14,50,602
4. Total expenditure chargeable to current income	1,33,38,859	2,67,11,652	4,20,49,769
5. Debts	20,34,483	41,68,650	1,18,68,157
6. Total disbursements	1,53,78,341	3,08,80,302	5,39,17,926
7. Balance (closing)	20,66,478	74,28,414	1,09,77,067

N.B.—Only important items of expenditure and the total expenditure are shown in the statement.

(b) The District Municipalities.

Municipal administration in 1880 was governed by the Towns' Improvement Act, III of 1871. This Act provided for the appointment or election of Commissioners (the Collector of the district being ex officio president) to conduct the affairs of the town. In fact, however, all Commissioners were appointed by the Government until 1878-79 when "the franchise was given to the important towns."

In 1883 a Committee was appointed to report on local and municipal administration, and one of the results of this Committee's report was the enactment of the Madras Municipalities Act, IV of 1884. Under this Act the Collector ceased to be the president, who was either appointed by the Government or, when the Government so directed, elected by the councillors. The number of councillors was to be not less than twelve and two-thirds of the number were to be elected by the rate-payers.

By Act V of 1920 the minimum number of councillors was raised to sixteen; a proportion not less than three-fourths of the total number should be elected and the remaining Members were to be appointed by Government. Official control was relaxed. Act X of 1930 has removed the disqualification of women to stand for election; and seats may be reserved for specified minority communities and women. The municipal franchise has been extended to every person who is assessed to any tax to the Government of India, or the Local Government or any other local authority in the Presidency. The office of chairman has been made elective without exception. Provision is made for the provincialization of any class of municipal officers or servants. Provision is made for votes of no-confidence in chairmen and vice-chairmen. A provision for the adjudication of disputes similar to the one made in the Local Boards' Act is also made here.

The following statement illustrates the growth of the representative principle in the last fifty years:—

Year.	Number of municipalities.	Total strength of the council.	Ex officio council-lors.	Elected council-lors.	Nominated council-lors.	Number of councils in which councillors were elected.
1880-81	..	47	740	79	18	643
1890-91	..	55	868	55	419	394
1900-01	..	60	883	63	412	408
1910-11	..	61	940	71	466	403
1920-21	..	80	1,204	44	758	407
1930-31	..	81	1,689	Nil	1,282	407

The following statements exhibit the increase in the resources of municipalities in the same period:—

Receipts—District municipalities.

(1)	1880-81. (2)	1890-91. (3)	1900-01. (4)
A. Municipal rates and taxes	9,17,048	11,77,439	18,07,154
B. Realization under special Acts .. ..	..	..	9,441
C. Revenue derived from municipal property and powers apart from taxation.	2,47,236	4,37,991	6,01,749
D. Grants and contributions— 1. From Government	93,392	2,10,950	1,34,095
2. From local funds and others .. ..	..	..	1,49,413
E. Miscellaneous .. ..	..	..	1,39,657
F. Extraordinary and debt advances and deposit.	..	..	2,25,025
Total ..	12,57,671	18,26,380	30,66,534

Receipts—District Municipalities—*cont.*

	1910-11. (5) RS.	1920-21. (6) RS.	1930-31. (7) RS.
A. Municipal rates and taxes	27,10,649	47,50,693	89,47,280
B. Realization under special Acts ..	18,592	24,495	44,156
C. Revenue derived from municipal property and powers apart from taxation.	9,28,463	18,90,177	32,73,741
D. Grants and contributions—			
1. From Government	7,47,659	17,94,955	24,50,807
2. From local funds and others ..	1,89,702	2,93,441	2,38,428
E. Miscellaneous	2,57,915	5,60,849	8,38,703
F. Extraordinary and debt advances and deposit.	10,77,489	18,34,036	(a) 51,38,464
Total ..	<u>59,10,469</u>	<u>1,11,48,646</u>	<u>2,09,31,578</u>

Expenditure—District Municipalities.

(1)	1880-81. (2) RS.	1890-91. (3) RS.	1900-01. (4) RS.
A. General administration and collection charges.	98,100	1,53,475	2,30,846
B. Public Safety including lighting and fire establishment.	1,86,396	84,427	1,19,145
C. Public Health and conveniences including drainage, water-supply and conservancy, etc.	5,42,070	7,66,471	17,61,766
D. Public Works—			
1. Establishment ..	10,349	26,576	34,416
2. Building ..	67,713	92,517	1,47,413
3. Roads ..	1,52,782	2,59,750	2,82,979
E. Public instruction—			
Schools and colleges ..	75,921	2,55,754	3,46,822
F. Miscellaneous	1,17,991	1,29,600	
G. Extraordinary debts, including investment in securities—Savings Bank—Repayment of loans and interest, etc.	12,619	26,786	1,96,436
Total ..	<u>12,58,941</u>	<u>17,94,356</u> ..	<u>31,19,823</u>

	1910-11. (5) RS.	1920-21. (6) RS.	1930-31. (7) RS.
A. General administration and collection charges.	3,27,356	16,52,042	15,81,093
B. Public Safety including lighting and fire establishment	1,90,769	4,62,264	17,64,053
C. Public Health and conveniences including drainage, water-supply and conservancy, etc.	23,93,586	48,78,695	70,94,090
D. Public Works—			
1. Establishment ..	46,104	1,50,277	2,13,073
2. Building ..	5,72,003	9,88,768	2,92,543
3. Roads ..	5,40,933	10,87,624	21,86,232
E. Public instruction—			
Schools and colleges ..	4,49,704	12,59,297	30,66,239
F. Miscellaneous	8,65,951	5,67,512	1,86,327
G. Extraordinary debts, including investment in securities—Savings Bank—Repayment of loans and interest, etc.	9,69,469	15,93,882	54,68,152
Total ..	<u>58,55,875</u>	<u>1,26,40,351</u>	<u>2,18,01,802</u>

(a) Includes a sum of Rs. 3,08,519 which represents advances from Government loan from District Board investments or other receipts.

(c) Corporation of Madras.

The administration of the municipal affairs of the City of Madras was managed in 1880 under Act V of 1878 by a president, 2 vice-presidents, and 32 councillors. The president and vice-presidents were salaried officers appointed by the Government. Sixteen out of thirty-two councillors were nominated by the Governor in Council while the other sixteen were elected by the voters. The elective principle was first introduced into the City by this Act V of 1878. The entire executive authority was vested in the president and in the two vice-presidents—one of the vice-presidents was in charge of the assessment and collections of taxes and tolls and the other vice-president was in charge of public works, conservancy and sanitation.

Under Act I of 1884 the number of elected members was raised to 24 “unless the Governor in Council otherwise directs”—the rest were to be nominated by Government. In 1892 the posts of the two vice-presidents were abolished and their duties assigned to salaried officers (Revenue Officer, Health Officer and Engineer) appointed by Government. Act I of 1884 amended by Act II of 1892 and Act II of 1899 was superseded by Act III of 1904, under which the number of municipal commissioners was increased from 32 to 36 besides the president. Provision was made for the appointment of three Commissioners by the Madras Chamber of Commerce, three by the Madras Trades Association and two by such other associations, corporate bodies, or class of persons as the Local Government might direct. The number of elected members was fixed at 20. The remaining eight Commissioners were appointed by the Government who also appointed the president.

Act III of 1904 was superseded by Act IV of 1919, section 4 of which entrusts the administration to the following three authorities:—

- (1) The Council.
- (2) Standing committees of the Council.
- (3) The Commissioner to be appointed by the Governor in Council not being a member of the council.

The Council consists of 50 councillors as follows:—

(a) Thirty elected divisional councillors.
 (b) Three elected by the Madras Chamber of Commerce, three by the Madras Trades Association and two by the South Indian Chamber of Commerce.

(c) Three elected or appointed by other associations or bodies as directed by the Government. The Government have directed that the Madras Port Trust, the University and Anglo-Indian Association shall each elect one councillor.

(d) Nine appointed by the Government with special regard to the representation of Muhammadans and other minorities.

President of the Corporation is elected annually by the Council.

The Commissioner holds the appointment for a renewable period of three years. He may be removed by the Government and shall be so removed if, at a special meeting of the Council called for the purpose, 33 councillors vote for his removal. He has the right to attend meetings of the Council or of a standing committee and to take part in the discussions but not to vote. The executive power vests in the Commissioner; he prescribes the duties of the establishment and exercises supervision and control over their acts and proceedings.

The executive of the Corporation is organized in departments—

- (1) The Revenue Department under the Revenue Officer.
- (2) The Works Department under the Engineer.
- (3) The Health Department under the Health Officer.

Special features.—Under the Madras Local Authorities Entertainment Tax Act V of 1927, the Council resolved to collect an entertainment tax from 15th January 1929.

Compulsory Elementary Education scheme was first introduced on 1st July 1925. It was first introduced into four divisions. In 1928–29 the scheme was working in all divisions of the City.

The following statements exhibit the increase in the resources of the Corporation :—

Receipts—Corportion of Madras.

Receipts items. (1)	1880-81. (2)	1890-91. (3)	1900-01. (4)
	RS.	RS.	RS.
1. Opening balance	68,589	2,51,783	3,66,190
2. Municipal rates and taxes	6,71,988	8,68,914	10,33,239
3. Revenue from municipal properties and powers apart from taxation.	39,487	34,788	3,39,063
4. Contribution from Government	15,058	26,252	35,503
5. Miscellaneous	30,268	73,323	62,265
6. Extraordinary debts, etc.	1,23,751	52,508	10,61,053
7. Imperial licence tax * or advances recoverable.	* 91,673	45,300	60,676
Total ..	<u>10,40,764</u>	<u>13,52,868</u>	<u>29,57,989</u>

1920-21.

1910-11.	Capital Account. (6)	Revenue Account. (7)
	RS.	RS.
1. Opening balance	25,06,757	4,28,896
2. Municipal rates and taxes	16,80,177	.. 2,490
3. Revenue from municipal properties and powers apart from taxation.	5,78,911	5,38,215
4. Contribution from Government	7,32,350	5,00,000
5. Miscellaneous	1,41,899	707
6. Extraordinary debts, etc.	92,050	5,00,000
7. Imperial licence tax * or advances recoverable.	30,511	2,68,629
Total ..	<u>57,62,655</u>	<u>18,72,102</u>
		* 1,71,380
		<u>47,68,807</u>

* Transferred from Revenue Account.

Expenditure—Corporation of Madras.

	(1)	1880-81 (2)	1890-91. (3)	1900-01. (4)
		RS.	RS.	RS.
1. Public Works		1,48,607	3,39,565	14,29,035
2. Education		8,258	10,179	14,313
3. Sanitation and medical		2,57,761	4,52,510	4,03,422
4. Supervision and management		1,11,462	92,179	1,06,504
5. Repayment of debts or Sinking Fund.		75,606	51,048	68,830
6. Interest		58,280	1,20,495	1,99,997
7. Miscellaneous		80,584	89,050	2,71,838
8. Imperial licence tax * or Advances Recoverable		* 93,508	26,279	1,00,916
9. Contributions		45 409	..	..
10. Deposits and suspense account.		1.27 887	..	..
11. Closing balance		33,402	1,71,533	3,63,133
Total ..		<u>10,40,764</u>	<u>13,52,868</u>	<u>29,57,989</u>

1920-21

	1910-11. (5)	Revenue Account. (6)	Capital Account. (7)
	RS.	RS.	RS.
1. Public Works	21,85,784	15,32,393	10,91,971
2. Education	22,480	94,220	..
3. Sanitation and medical	4,65,523	10,32,796	..
4. Supervision and management	1,64,132	2,76,764	..
5. Repayment of debts or Sinking Fund.	1,22,393	2,76,349	..
6. Interest	3,48,186	4,72,182	..
7. Miscellaneous	3,36,446	5,51,890	2,93,843
8. Imperial licence tax * or Advances Recoverable	9,593	76,451	19,982
9. Contributions .. .. .. ..	..	1,71,380	..
10. Deposits and suspense account		(Transferred to Capital Account).	
11. Closing balance	21,03,118	2,84,482	4,66,306
Total	<u>57,62,655</u>	<u>47,68,807</u>	<u>18,72,102</u>

'Transferred from Revenue Account.

Abstract of the accounts of the Madras Corporation, 1930-31.

Ordinary

(iv) INDIANIZATION OF THE CIVIL SERVICE.

The services originally consisted of covenanted and unconvenanted civil services. In pursuance of the policy announced in Her Majesty's proclamation of November 1858, Acts of Parliament were passed to meet the aspirations of the educated and leading classes and to associate Indians with the Government of their country.

The Government of India Act, 1870, afforded additional facilities for the employment in the Civil Service of Indians of merit and ability with the approval of the Secretary of State, this provision being brought into effective operation in 1879 when regulations were issued establishing what was called "the Statutory Civil Service." A rule was also adopted in 1879 that appointments made in India carrying a salary of Rs. 200 a month and upwards should ordinarily be reserved for Indians and that no appointment might be made in contravention of the rule without special sanction.

In 1886 a Commission was appointed by Lord Dufferin's Government to consider the question of the further employment of Indians in the superior administrative grades of the public service. The result of their deliberations to which effect was given in 1891, was to mark off in the cadre of the Civil Service of India, as then constituted, a considerable number of offices, to place them on a separate list, under the designation of "listed posts" and to declare them open to the Provincial Civil Service, the great body of public servants of Indian race or domicile through whom the detailed work of administration is carried on.

The recruitment to the Indian Civil Service was by open competitive examination held only in England till 1922, when an examination was first held in India also. Until recent years no Indians were admitted to the All-India Services except the Indian Civil Service, the other All-India Services being intended to provide that amount of European supervision which was considered necessary for the introduction and maintenance of Western methods and standards of administration. In recent years, however, Indians have been admitted to other All-India Services both by 'listing' posts and by direct recruitment. The number of Indians on 1st January 1920 was 789 and on 1st January 1930, 1,223.

The Lee Commission recommended that by 1939 50 per cent of the number of the Indian Civil Service should be Indians and 50 per cent Europeans. The number of Europeans in this service in Madras fell from 144 on 1st January 1920 to 112 on 31st December 1931. Recruitment to the Indian Civil Service is now made both in India and London. The number of European and Indian candidates recruited for the Madras Presidency during each of the years 1926 to 1931 is—European candidates, 3, 4, 4, 4, 2, 3 and Indian candidates, 3, 7, 6, 6, 7, 4, respectively.

Indian Police Service.—Recruitment is made in England by competitive examination and in India by competitive examination, direct selection and promotion or transfer from Provincial Services.

The Lee Commission anticipated that their recommendation that the proportion of Europeans and Indians in the Indian Police Service should be 50 : 50 could be attained in 25 years. Twenty per cent of the superior posts are to be filled by the promotion of officers of the Madras Police Service. The number of superior posts actually held by Indians rose from 2 in 1924 to 7 in 1931.

The Indian Forest Service.—The Lee Commission recommended 25 per cent Europeans and 75 per cent Indians. Recruitment to the service is made by the following methods:—

- (a) by nomination in England of British subjects of non-Indian domicile;
- (b) by competitive examination in India of British subjects of Indian domicile;
- (c) by direct appointment of persons selected in India otherwise than by competitive examination;
- (d) by the promotion of the Provincial Forest Service Officers on the recommendation of the Local Governments concerned; and
- (e) by the transfer or promotion of an officer belonging to a branch of Government service other than a Provincial Forest Service.

Indian Service of Engineers.—The rate of recruitment to the service in Madras is 33 per cent Europeans, 45 per cent direct recruited Indians and 22 per cent officers promoted from the Madras Engineering Service. Direct recruitment will be made for the Indian section in India by competitive examination and to the European section in England by selection.

Indian Medical Service.—In the case of the Indian Medical Service unlike all other Indian services the listing is the other way, i.e., all the posts will be provincialized as opportunities occur except 23 posts plus a leave reserve or a total of 29 which have been reserved for the Indian Medical Service. The total strength of the Madras Medical Service (General Branch and Special Branch) on 1st January 1931 was 332.

Agriculture, Educational and Veterinary Services.—Recruitment to these All-India Services has been stopped since 1924. When a vacancy arises in the All-India Service, it is replaced by an addition to the corresponding Provincial Service.

The subjoined comparative statements show the steady increase in the numbers of Indians holding important gazetted posts under Government on 1st January 1924 and 31st December 1931, i.e., officials ordinarily having control over a district or holding higher posts; (2) the representation of the Europeans and Indians in the Government services on the 1st of April 1880, 1890, 1900, 1910, 1920, 1930 and 1931.

A statistical table is appended illustrating the high proportion of Indians from this Presidency who have passed into the Indian Civil Service since examinations have been held in India as well as in England.

Statement showing the number of European and Indian officers holding important gazetted posts under Government on 1st January 1924 and 31st December 1931, i.e., officials ordinarily having control over a district or holding higher posts.

NOTE.—Only permanent incumbents are shown but officials serving outside the Presidency have been excluded and the senior acting officials have been counted in their places.

	1st January 1924.			31st December 1931.		
	Europeans	Indians	Total	Europeans	Indians	Total
Appointments.						
1. Members of Government (including Governor and Ministers) ..	3	5	8	3	5	8
2. Secretaries to Government (excluding Chief Engineer Secretaries) ..	5	1	6	5	2	(a) 7
3. Members of the Board of Revenue ..	3	..	3	3	..	3
4. Collectors of districts (excluding Commissioner of Labour, Registrar of Co-operative Societies and Inspector of Municipal Councils and Local Boards)	20	6	26	19	7	26
5. Deputy and Assistant Commissioners of Salt and Abbkari	13	2	15	7	2	(b) 9
6. High Court Judges	7	5	12	8	6	(c) 14
7. District Judges	15	9	24	14	12	26
8. Administrator-General	1	..	1	..	1	1
9. City Civil Judge .. .. ..	..	1	1	..	1	1
10. Chief Presidency Magistrate	1	..	1	..	1	1
11. Chief Judge, Small Cause Court .. .. ..	..	1	1	..	1	1
12. Director of Survey	1	..	1	1	..	1
13. Inspector-General of Police	1	..	1	1	..	1
14. Deputy Inspectors-General of Police (including Commissioner of Police)	6	..	6	6	..	6
15. District Superintendents of Police	33	2	35	29	7	36
16. Inspector-General of Prisons	1	..	1	1	..	1
17. Central Jail Superintendents (including Alipuram Temporary Jail and Personal Assistant to the Inspector-General of Prisons)	10	..	10	7	5	12
18. District Jail Superintendents (including Certified Schools, Borstal Institute and Deputy Superintendent, Alipuram Jail)	4	1	5	6	2	(a) 8
19. Director of Public Instruction	1	..	1	1	..	1
20. Posts included in Indian Educational Service (Men's Branch) cadre— (a) held by members of Indian Educational Service	21	19	53	12	12	(e) 42
(b) held by members of Madras Educational Service .. .. ..	..	13	..	..	18	
21. Posts included (Women's Branch) in Indian Educational Service cadre— (a) held by members of Indian Educational Service .. .. ..	..	..	..	6	1	11
(b) held by members of Madras Educational Service .. .. ..	..	..	..	1	3	

(a) Increase due to the addition of one Secretary to Government in the Public Works and Labour Department.

(b) Decrease due to separation of Salt from Abbkari and abolition of Deputy Commissioners' posts.

(c) Addition of two High Court Judges.

(d) Addition of two certified schools and one District Jail. Post of Deputy Superintendent of the Alipuram Jail abolished in March 1931.

(e) Stoppage of European recruitment since 1924 and relegation of vacant posts to the Madras Educational Service account for variation in figures.

Statement showing the number of Europeans and Indian officers holding important gazetted posts under Government on 1st January 1924 and 31st December 1931, i.e., officials ordinarily having control over a district or holding higher posts—*cont.*

Appointments.	1st January 1924.			31st December 1931.		
	Europeans.	Indians.	Total.	Europeans.	Indians.	Total.
22. Professors of Engineering	2	..	2	2	1	(h) 3
23. Inspector-General of Registration .. ..	..	1	1	..	1	1
24. District Registrars .. .. ..	..	32	32	..	28	(a) 28
25. Surgeon-General (Indian Medical Service)	1	..	1	1	..	1
26. District Medical Officers (Indian Medical Service)	28	7	35	13	6	(d) 19
27. Civil Surgeons	5	2	7	..	34	34
28. Bacteriological Department	3	1	4	1	2	3
29. Chemical Examiner .. ..	..	1	1	1	..	1
30. Director, Tuberculosis Institute .. ..	..	1	1	..	1	1
31. Professors of Anatomy .. ..	..	1	1	..	2	(e) 2
32. Professors of Physiology .. ..	..	..	..	..	2	(e) 2
33. Principal, School of Indian Medicine .. .. ..	..	..	..	Vacant.	..	Vacant.
34. Radiologist, X-Ray Institute, Government General Hospital, Madras .. .. ..	..	..	..	..	..	..
35. Dental Surgeon, Government Kanyakumari Hospital, Madras .. ..	..	..	..	..	..	..
36. Public Analyst .. ..	..	..	..	1	..	1
37. Director of Public Health .. ..	..	1	1	(d) 1	..	1
38. Assistant Directors of Public Health .. ..	..	3	3	1	4	5
39. Director of Agriculture	1	..	1	Vacant.	..	Vacant.
40. Officers of Indian Agricultural Service	10	8	19	(e) 5	7	12
41. Director, Veterinary Services	1	..	1	1	..	1
42. Officers of Indian Veterinary Service .. .. ..	..	3	1	4	1	2
43. Chief Conservator of Forests	1	..	1	1	1	1
44. Conservators	6	..	6	4	2	6
45. District Forest Officers	29	16	45	11	18	(f) 29
46. Director of Fisheries .. ..	..	1	1	..	1	1
47. Chief Engineers	1	1	2	1	1	2
48. Superintending Engineers	3	2	5	3	2	5
49. Executive Engineers	33	18	51	28	22	(g) 50
50. Joint and Deputy Registrars, Co-operative Societies .. ..	..	..	13	13	13	13

(a) One addition for West Godavari and abolition of four posts of District Registrars and the post of Inspector of Registration offices in 1931.

(b) Reduction in the number of Indian Medical Service officers in civil employment and employment of larger number of Provincial Service officers in districts.

(c) Madras and Vizagapatam.

(d) Indian Medical Service officer.

(e) Decrease in the number of Europeans due to stoppage of European recruitment since 1924.

(f) Decrease in European recruitment and increase in Indian recruitment since 1924 accounts for variation.

(g) Ratio of Indian recruitment is greater and European recruitment is less since 1924.

(h) Represents posts originally in the Indian Educational Service but now filled by officers on special contract.

Statement showing the representation of Europeans and Indians in the Government services on the 1st of April, 1880, 1890, 1900, 1910, 1920, 1930 and 1931.

NOTE.—For the purposes of this statement officials holding permanent appointments in Government services have been taken into account, whether they were actually on duty or on leave on the dates mentioned, but officials on duty outside the Presidency have not been taken into account.

Gazetted Officers.

Services.	All-India Services.		Provincial Services.	
	Europeans.	Indians.	Europeans.	Indians
Members of Government—				
1880	3	..
1890	3	..
1900	3	..
1910	3	..
1920	3	1
1930	3	5
1931	3	5
Secretariat—				
1880	16	..
1890	16	..
1900	11	1
1910	10	..
1920	12	3
1930	10	3
1931	8	5
Legislative Council office including the President—				
1880
1890
1900
1910
1920	Constituted in 1920	..
1930
1931
Members of the Board of Revenue, Secretary Board of Revenue and Collectors including subordinates, Assistant and Deputy Collectors—				
1880	151	..
1890	132	49
1900	108	7
1910	109	9
1920	87	10
1930	63	48
1931	66	44
Survey Department—				
1880	18
1890	16
1900	11
1910	10
1920	6
1930	7
1931	5
Excise Department—				
1880
1890
1900	3	70
1910	3	64
1920	3	59
1930	1	29
1931	1	21

Statement showing the representation of Europeans and Indians in the Government services on the 1st of April, 1880, 1890, 1900, 1910, 1920, 1930, and 1931—*cont.*

Services.	Gazetted Officers.			
	All-India Services.		Provincial Services.	
	Europeans.	Indians.	Europeans.	Indians.
Judicial Department including High Court Judges—				
1880	45	..	..	125
1890	51	..	..	123
1900	28	1	16	133
1910	21	5	14	158
1920	24	5	8	191
1930	23	16	4	215
1931	22	18	1	205
Police Department—				
1880	47	..	..	2
1890	65	..	..	1
1900	70	..	..	2
1910	64	4	2	28
1920	65	3	3	42
1930	57	9	1	43
1931	51	15	1	43
Jail Department—				
1880	..	..	12	1
1890	..	..	12	1
1900	..	..	11	..
1910	..	..	10	..
1920	..	..	12	..
1930	..	2	12	3
1931	..	4	12	3
Education Department—				
1880	25	..	..	3
1890	32	..	..	21
1900	19	..	11	30
1910	27	..	10	29
1920	31	5	6	55
1930	20	35	10	89
1931	20	33	14	90
Registration Department—				
1880	..	..	4	18
1890	..	..	1	22
1900	..	..	1	23
1910	..	..	1	25
1920	..	..	1	27
1930	..	..	2	28
1931	..	..	2	31
Medical Department—				
1880	52	..	..	2
1890	37	..	..	13
1900	66	6	8	17
1910	53	9	28	22
1920	52	15	26	143
1930	27	11	31	254
1931	21	7	31	269
Public Health Department—				
1880	..	..	..	..
1890	2	..	..	..
1900	2	..	5	1
1910	2	..	5	6
1920	3	..	..	6
1930	1	..	..	6
1931	..	..	..	66

Gazetted officers in the High Court have been included in the statement for purpose of statistics only.

Statement showing the representation of Europeans and Indians in the Government services on the 1st of April, 1880, 1890, 1900, 1910, 1920, 1930 and 1931—*cont.*

Services.	Gazetted Officers.			
	All-India Services.		Provincial Services.	
	Europeans.	Indians.	Europeans.	Indians
Agricultural Department—				
1880	..	..	..	..
1890	..	..	..	..
1900	..	..	..	..
	Department not in existence.			
1910	..	..	7	1
1920	..	..	11	3
1930	..	..	7	7
1931	..	..	5	7
				1
				15
				38
				38
Veterinary Department—				
1880	..	..	..	..
1890	..	..	1	..
1900	..	..	..	..
1910	..	..	2	..
1920	..	..	2	..
1930	..	..	2	1
1931	..	..	2	1
				12
				15
Co-operative Department—				
1880	..	..	..	..
1890	..	..	..	..
1900	..	..	..	..
1910	..	..	..	..
1920	..	..	1	..
1930	..	..	1	..
1931	..	..	1	..
	Not in existence.			
				..
				..
				N.R.
				10
				26
				26
Forest Department—				
1880	..	..	18	..
1890	..	..	25	..
1900	..	..	41	..
1910	..	..	35	3
1920	..	..	40	7
1930	..	..	32	24
1931	..	..	32	24
				7
				27
Cinchona Department—				
1880	..	..	..	..
1890	..	..	..	..
1900	..	..	..	..
1910	..	..	..	1
1920	..	..	..	1
1930	..	..	..	2
				4
				..
Industries Department—				
1880	..	..	..	..
1890	..	..	..	..
1900	..	..	..	..
1910	..	..	..	..
	Constituted in 1913.			
1920	..	..	1	..
1930	..	..	..	3
1931	..	..	..	3
				14
				14
Fisheries Department—				
1880	..	..	..	..
1890	..	..	..	..
1900	..	..	..	..
1910	..	..	..	..
1920	..	..	..	..
1930	..	..	..	3
1931	..	..	..	1
				..
				2
				..
				..

Statement showing the representation of Europeans and Indians in the Government services on the 1st of April, 1880, 1890, 1900, 1910, 1920, 1930 and 1931—*cont.*

Services.	Gazetted Officers.			
	All-India Services.		Provincial Services.	
	Europeans.	Indians.	Europeans.	Indians.
Factories Department—				
1880
1890
1900
1910
1920	1 2
1930	1 7
1931	1 7
Marine Department—				
1880	14 ..
1890	15 ..
1900	2	14 ..
1910	2	14 ..
1920	2	13 ..
1930	2	14 1
1931	1	15 1
Ecclesiastical Department—				
1880	45	.. ..
1890	48	.. ..
1900	37	.. ..
1910	37	.. ..
1920	33	.. ..
1930	25	.. ..
1931	22	.. ..
Town-Planning Department—				
1880
1890
1900	Not in existence.	.. ..
1910
1920
1930	1 1
1931	1 1
Local Fund Audit Department—				
1880
1890
1900	1	.. ..
1910	Nil	1 ..
1920	Nil	1 ..
1930	Nil .. 4
1931 4
Public Works Department—				
1880	67	.. Nil 2
1890	77	.. 6
1900	63	14 1 8
1910	65	11 2 23
1920	57	9 1 28
1930	37	34 28 118
1931	35	33 22 117
District Board Engineers (Provincialized in 1924)—				
1880
1890
1900	Provincialized in 1924.
1910
1920
1930	3 22
1931	3 22

Statement showing the representation of Europeans and Indians in the Government services on the 1st of April, 1880, 1890, 1900, 1910, 1920, 1930 and 1931—cont.

Number of Indians who came out successful in Indian Civil Service from 1880.

Year.	Number of Madrasis.	Number of other Indians.	Total.	Year.	Number of Madrasis.	Number of other Indians.	Total.
1880	1906	..	..	..
1881	1907	..	..	..
1882	1908	..	..	..
1883	1909	..	..	..
1884	1910	..	..	..
1885	1911	..	..	..
1886	1912	..	..	..
1887	1913	..	..	..
1888	1914	..	..	..
1889	1915	..	..	..
1890	1916	..	..	..
1891	1917	..	..	..
1892	1918	..	..	..
1893	1919	..	..	..
1894	1920	..	..	..
1895	1921	..	..	..
1896	1922	..	..	..
1897	1923	..	..	..
1898	1924	..	..	..
1899	1925	..	..	..
1900	1926	..	..	..
1901	1927	..	..	..
1902	1928	..	..	..
1903	1929	..	..	..
1904	1930	..	..	..
1905	1931	..	..	..

3. LEGISLATURE.

Among the important enactments of the Madras Legislature during the last fifty years, the following deserve mention :—

Year.	Number.	Short title.	Repeals and amendments.
1882	V	The Madras Forest Act, 1882.	Validated India Act XXI of 1882. Amended Madras Acts VIII of 1914 and VII of 1919.
1884	I	The City of Madras Municipal Act, 1883.	Repealed Madras Act III of 1904.
	IV	The Madras District Municipalities Act, 1884.	Repealed Madras Act V of 1920.
	V	The Madras Local Boards Act, 1884.	Repealed Madras Act XIV of 192
	VI	The Madras Rivers Conservancy Act, 1884.	Amended Madras Act III of 1885.
1885	III	The Madras Outports Landing and Shipping Fees Act, 1885.	Amended Madras Acts VIII of 1914, I of 1916 and V of 1919. See India Act X of 1931.
1886		The Madras Abkari Act, 1886.	Repealed in part and amended Madras Act I of 1913. Amended Madras Acts I of 1905, I of 1915 and XVIII of 1929 and India Act II of 1930.
	II	The Madras Harbour Trusts Act, 1885.	Repealed Madras Act III of 1905.
	IV	The Railway Protection Act, 1886.	....
1888	I	The Local Authorities Loan Act, 1888.	Repealed in part India Act XI of 1901. Amended India Act XXXVIII of 1920.
	II	The Places of Public Resort Act, 1888.	Repealed in part India Act XI of 1901.
	III	The Madras City Police Act, 1888.	Repealed in part India Act XI of 1901; and Madras Acts IV of 1905 and V of 1930.
1889	I	The Madras Village Courts Act, 1888.	Amended Madras Acts III of 1898, III of 1907 and XIII of 1929. Repealed in part India Act XI of 1901.
	III	The Towns Nuisances Act, 1889.	Amended Madras Acts IV of 1904, II of 1920 and XV of 1929. Repealed in part India Act XI of 1901 and Madras Act III of 1930.
	IV	The Madras Salt Act, 1889.	Amended Madras Act III of 1909. Repealed in part India Act XI of 1901.
1890	II	The Canals and Public Ferries Act, 1890.	Repealed in part India Act XI of 1901. Amended Madras Acts II of 1895, V of 1914 and VIII of 1914.
1891	I	The Madras General Clauses Act, 1891.	Amended Madras Act III of 1896 and XI of 1920.
1893	III	The Madras Steam Boilers and Prime Movers Act, 1893.	Repealed India Act V of 1923.

Year.	Number.	Short title.	Repeals and amendments.
1893.	V	The Madras Revenue Enquiries Act, 1893.	
1894	I	The Madras Board of Revenue Act, 1894.	Repealed in part India Act XI of 1901.
	II	The Madras Proprietary Estates Village Service Act, 1894.	Repealed in part Madras Act IV of 1911.
	III	The Madras Hereditary Village-offices Act, 1895.	Repealed in part and amended Madras Act III of 1914. Amended Madras Acts III of 1895, IV of 1900 and VII of 1930.
1895			Repealed in part India Act XI of 1901.
			Repealed in part and amended Madras Act IV of 1907. Amended Madras Acts II of 1897 and VII of 1930.
1896	III	The Malabar Land Registration Act, 1895.	Amended Madras Act I of 1920.
	IV	The Malabar Marriage Act, 1896.	Amended Madras Act I of 1898.
1897	IV	The Madras Survey and Boundaries Act, 1897.	Repealed Madras Act VIII of 1923.
1898	V	The Malabar Wills Act, 1898.	....
1899	III	The Madras Registration of Births and Deaths Act, 1899.	....
1900	I	The Malabar Compensation for Tenants' Improvements Act, 1899.	Repealed in part India Act XI of 1901. See Madras Act XII of 1931.
1902	I	The Madras Court of Wards Act, 1902.	Amended Madras Act I of 1911 and India Act XXXVIII of 1920.
1903	I	The Madras Planters Labour Act, 1903.	Repealed Madras Act VI of 1927.
1904	II	The Madras Impartible Estates Act, 1904.	Amended Madras Act VI of 1909; See Madras Acts II of 1918, VII of 1926; V of 1928, VIII of 1929, IX of 1929 and IX of 1930.
	III	The Madras City Municipal Act, 1904.	Repealed Madras Act IV of 1919.
1905	II	The Madras Port Trust Act, 1905.	Repealed in part Madras Act IV of 1919. Amended Madras Acts II of 1915, II of 1919, IV of 1923 and VII of 1929.
	III	The Madras Land Encroachment Act, 1905.	Amended Madras Act VIII of 1914.
1907	I	The Madras Motor Vehicles Act, 1907.	Repealed India Act VIII of 1914.
	II	The Madras Hill Municipalities Act, 1907.	Repealed Madras Act V of 1920.
1908	I	The Madras Estates Land Act, 1908.	Amended Madras Act IV of 1909.
1911	V	The Madras Hackney Carriage Act, 1911.	Amended Madras Act III of 1924.
1914	I	The Hindu Transfers and Bequests Act, 1914.	Amended India Act XXI of 1929.
	IV	The Madras Medical Registration Act, 1914.	Amended Madras Acts X of 1929 and XIV of 1929.
	VIII	The Madras Decentralization Act, 1914.	Repealed in part Madras Acts V of 1920 and XIV of 1920.
1917	I	The Agency Tracts Interest and Land Transfer Act, 1917.	....
1918	I	The Mappilla Succession Act, 1918.	

Year.	Number.	Short title.	Repeals and amendments.
1918	III	The Madras Prevention of Adulteration Act, 1918.	Amended Madras Act II of 1928.
1919	III	The Madras Agricultural Pests and Diseases Act, 1919.	Amended Madras Act VII of 1925.
	IV	The Madras City Municipal Act, 1919.	Amended India Act XXXVIII of 1920 and Madras Acts IV of 1921, VII of 1922, III of 1923, IV of 1924, VI of 1925 and III of 1931.
1920	IV	The Madras Children Act, 1920.	Amended Madras Act I of 1924. Supplemented India Act XXV of 1925.
	V	The Madras District Municipalities Act, 1920.	Amended Madras Acts XII of 1920, II of 1921, V of 1921, I of 1922, II of 1922, XVII of 1929, X of 1930 and III of 1931.
	VII	The Madras Town-Planning Act, 1920.	Amended Madras Act II of 1930.
	VIII	The Madras Elementary Education Act, 1920.	
	XIV	The Madras Local Boards Act, 1920.	Amended Madras Acts II of 1922, V of 1925, I of 1927, XI of 1930 and III of 1931.
	XV	The Madras Village Panchayats Act, 1920.	Repealed Madras Act XI of 1930.
1922	III	The Madras City Tenants' Protection Act, 1921.	Amended Madras Act VI of 1926.
	V	The Madras Court-fees (Amendment) Act, 1922.	
	VI	The Madras Stamp (Amendment) Act, 1922.	Amended Madras Act VI of 1923, and India Act XXXVIII of 1926.
1923	V	The Madras State Aid to Industries Act, 1922.	Amended Madras Acts VIII of 1928 and VI of 1930.
	VII	The Madras University Act, 1923.	Repealed in its application to Andhra districts by Madras Act II of 1926.
	VIII	The Madras Survey and Boundaries Act, 1923.	Amended Madras Act XIII of 1929.
1924	II	The Tuticorin Port Trust Act, 1924.	Amended Madras Act III of 1928.
1925	I	The Madras Hindu Religious Endowments Act, 1923.	Repealed Madras Act II of 1927.
	VIII	The Cochin Port Trust Act, 1925.	
1926	II	The Andhra University Act, 1926.	Amended Madras Acts IV, VI and XVI of 1929, VIII of 1930, XII of 1930 and XIII of 1930.
	III	The Madras Nurses and Midwives Act, 1926.	
	V	The Madras Borstal Schools Act, 1926.	
1927	II	The Madras Hindu Religious Endowments Act, 1926.	Amended Madras Acts I of 1928, V of 1929, IV of 1930 and XI of 1931.
	V	The Madras Local Authorities Entertainments Tax Act, 1926.	....
1928	VII	The Mappilla Wills Act, 1928.	....
1929	I	The Annamalai University Act, 1928.	....
	III	The Jaina Succession Act, 1928.	....

Year.	Number.	Short title.	Repeals and amendments.
1929	XI	The Madras Services Commission Act, 1929.	Amended Madras Act IV of 1931.
	XII	The Madras University (Amendment) Act, 1929.	....
	XIII	The Madras City Police (Amendment) Act, 1929.	....
1930	III	The Madras Gaming Act, 1930.	.....
	V	The Madras Suppression of Immoral Traffic Act, 1930.	....
	X	The Madras District Municipalities (Amendment) Act, 1930.	Amended Madras Act VIII of 1931.
	XI	The Madras Local Boards (Amendment) Act, 1930.	Amended Madras Act IX of 1931.
1931	XIV	The Malabar Tenancy Act, 1929.	....
	III	The Madras Motor Vehicles Taxation Act, 1931.	Amended Madras Act X of 1931.
	V	The Madras' Government Roads Traffic Control Act, 1931.	....
	XII	The Gudalur Compensation for Tenants Improvements Act, 1931.	....

4. LAW AND ORDER.

CIVIL AND CRIMINAL JUSTICE.

The High Court is the highest court of civil as of criminal law. It has both original and appellate jurisdiction, the former being confined to the City of Madras. Under the High Court there are District Judges, Subordinate Judges and District Munsifs to dispose of civil work, and Sessions Judges and Magistrates to dispose of criminal work. Village munsifs and village panchayat courts also dispose of civil suits.

Statement A shows the number of judicial offices exercising civil jurisdiction. Statement B shows the volume of civil work in different decades. There has been a steady increase in the number of Indian Judges and the major portion of the original work comes before them. The improved personnel of the courts and the establishment of additional tribunals have resulted in a great increase of the business coming before the civil courts. Statement B shows that very many suits have been filed in village courts and the village panchayat courts constituted under the Madras Act II of 1920. The suits which are triable by them, viz., suits the value of which does not exceed Rs. 50 (or with the written consent of both parties Rs. 200) are filed in such courts or are returned by the District Munsifs to be filed in such courts. The panchayat courts are popular. No court-fee is levied on suits filed in these courts. This accounts to a certain extent for the decrease in the number of suits filed in regular courts in 1928–29.

A.—Statement showing the number of European and Indian Judicial officers presiding over the regular Civil Courts.

	1880.			1890.			1900.		
	Europeans.	Indians including Eurasians.	Total.	Europeans.	Indians including Eurasians.	Total.	Europeans.	Indians including Eurasians.	Total.
Tribunals.									
1. High Court Judges ..	4	1	5	5	1	6	5	1	6
2. City Civil Court Judges..	..	..	..	..	..	..	..	1	1
3. Presidency Small Cause Court Judges.	..	..	..	1	2	3	2	1	3
4. District Judges ..	21	..	21	19	1	20	17	3	20
5. Subordinate Judges ..	..	13	13	1	13	14	1	13	14
6. District Munsifs ..	..	111	111	..	108	108	..	118	118
Total number of tribunals.	25	125	150	26	125	151	25	137	162

A.—Statement showing the number of European and Indian Judicial officers presiding over the regular Civil Courts—cont.

	1910.			1920.			1931.		
	Europeans.	Indians including Eurasians.	Total.	Europeans.	Indians including Eurasians.	Total.	Europeans.	Indians including Eurasians.	Total.
Tribunals.									
1. High Court Judges ..	5	3	8	8	4	12	8	6	14
2. City Civil Court Judges ..	..	1	1	..	1	1	..	1	1
3. Presidency Small Cause Court Judges.	1	2	3	..	4	4	..	3	3
4. District Judges ..	15	7	22	14	10	24	12	14	26
5. Subordinate Judges ..	..	24	24	..	54	54	..	62	62
6. District Munsifs ..	..	127	127	..	169	169	..	167	167
Total number of tribunals.	21	164	185	22	242	264	20	253	273

The City Civil Court was established in 1892.

The Presidency Small Cause Courts were constituted in 1850.

B.—Statement showing the number of Original Suits, Appeals and Execution Petitions of the regular courts.

Year.	Original suits.	Appeals.	Execution petitions.
1880	163,670	8,245	59,678
1890	206,029	11,333	166,300
1900	270,966	10,650	284,087
1910	297,995	27,902	321,815
1920	374,107	29,066	360,436
1929	280,705	20,956	383,104

Village courts.

1880	44,980	Includes suits (173,644) in the village panchayat courts.
1890	59,113	
1900	93,819	
1910	105,011	
1920	95,214	
1929	239,583	
1930	283,185	Includes (209,999) in the village panchayat courts.

Criminal Justice.—Statement C shows the number of courts administering criminal justice (excluding the High Court) and also the number of original cases and appeals instituted. As in civil Justice, the major part of the magisterial business comes before Indian Magistrates and it is an interesting feature that a large number of Indian gentlemen are now employed as Honorary Magistrates. While there were only 52 Bench Courts in 1890, their number was 207 in 1930. The number of Honorary Magistrates including women Honorary Magistrates was 1,688 in 1930 whereas their number in 1900 was 372.

Juvenile Court.—In 1930, a juvenile court has been established in the City of Madras under section 36 of the Madras Children's Act, 1920. The Court consists of one salaried Magistrate and an Honorary Magistrate who is usually a woman.

C.—Statement showing the number of Criminal Courts.

Description of courts.	1880.	1890.	1900.	1910.	1920.	1929.	1930.
1. Sessions Courts ..	21	20	23	25	25	29	29
2. Additional Sessions Judges.	..	..	6	3	6	1	1
3. Assistant Sessions Judges.	..	..	3	..	6	18	17
4. District Magistrates' Courts.	20	21	21	24	25	25	25
5. Additional District Magistrates' Courts.	..	..	..	2	1	2	3
6. Presidency Magistrates' Courts.	..	3	3	4	4	4	4
7. Subdivisional Magistrates' Courts.	54	86	86	105	110	104	99
8. Assistant and Deputy Magistrates' Courts.	54	..	..	32	32	19	25
9. Subordinate Magistrates including Taluk Magistrates.	486	503	477	496	447	486	465
10. Benches of Magistrates' Courts.	..	52 (a)	48 (a)	62 (b)	180 (c)	207 (d)	207 (e)
11. Special Magistrates' Courts.	..	67	40	65	72	95	102
12. Honorary Magistrates' Courts.	..	..	..	..	5	1	1
13. Cantonment Magistrates' Courts.	7	8	2	4	4	..	Nil.
Number of original cases instituted.	141,154	223,840	296,564	278,702	314,411	362,266	324,843
Number of appeals ..	3,713	6,598	10,401	9,351	8,723	7,196	7,094

(a) Figures regarding the number of Honorary Magistrates are not available.

(b) 372 Honorary Magistrates.

(c) 1,288 do.

(d) 1,573 do.

(e) 1,688 do.

Police.—There have been some important changes regarding the recruitment of the Police force since 1880. Till 1893 the Police officers were appointed by nomination but since 1893, recruitment has been by competition in England and India and by promotion of officers already in the public service. On the recommendation of the Police Commission of 1902, a Provincial Service of the rank of the Deputy Superintendent of Police was created as also a grade of Sub-Inspectors. The full complement of Sub-Inspectors, who were put in charge of the stations replacing head constables, was reached by 1910.

Other important changes introduced on the recommendation of the Commission of 1902 were (1) the organization of the Criminal Investigation Department for the purpose of collating and distributing information regarding organized crimes and for assisting in the investigation of difficult or complicated cases, (2) the reduction of Police stations, (3) the establishment of four Central Training schools for constables in place of District schools. Statement D shows the strength of the Police for several decades.

Crimes.—Statement E gives particulars of some of the grave crimes. Gang robbery of the old type has practically vanished.

The registration of wandering criminal gangs, establishment of settlements for tribes, members of which are habitually addicted to crime—theft and robbery—the reclamation of the Kallars and Maravars and the vigorous working of the Criminal Tribes Act have generally contributed to the prevention of serious crime.

A special scheme of reclamation has been introduced in the case of Kallars. The chief features of the scheme are—

- (1) Formation of panchayats.
- (2) Assignment of lands for cultivation.
- (3) Starting of cottage and home industries.
- (4) Spread of co-operative movement.
- (5) Spread of education.
- (6) Securing employment for labourers among them.

The Kalla panchayats co-operate with the Police in the registering of crimes, in the detection of crimes and the apprehension of offenders.

There are now eight settlements for criminal tribes, the strength of the settlements in 1929 being

Men—1,834

Women—1,739

Children—1,903.

D.—Statement showing the strength of Police and the number of Police stations.

	1880.	1890.	1900.	1910.	1920.	1930.	1931.
Number of Inspector-General of Police ..	5	5	5	5	6	6	7
Deputy Inspectors-General ..							
Commissioners, Deputy Commissioners and Assistant Commissioners ..	3	3	4	4	5	7	7
Number of District Superintendents ..	20	21	56	30	31	32	33
Number of Assistant Superintendents ..	20	21		35	35	32	32
Number of Deputy Superintendents ..	..	..	..	39	39	43	47
Number of Inspectors ..	344	540	396	286	297	315	279
Number of Deputy Inspectors ..	..	..	67	..	..	1,432	207
Number of Sub-Inspectors ..	87	29	..	1,669	1,544	1,448	207
Number of Sergeants ..	..	..	..	126	151	162	3,203
Number of head constables ..	24,170	19,888	2,607	3,342	3,557	3,175	23,414
Number of constables ..			19,403	26,671	27,321	23,523	
Number of stations ..	1,961	..	1,655	1,483	1,007	1,036	324
Number of outposts ..	..	..	44	168	371	359	

E.—Statement showing the number of cases of serious crimes.

	1880.	1890.	1900.	1910.	1920.	1930.	1931.
Dacoity	315	173	677	448	699	207	224
Robbery	373	359	746	775	956	641	658
House-breaking	6,508	7,000	8,996	9,956	12,669	7,886	7,722
Cattle theft	3,228	2,342	3,941	3,653	4,565	2,955	3,070
Theft	13,514	13,057	14,012	14,898	28,019	17,096	16,133

JAILS.

Till the Indian Act IX of 1894 was passed the jails were regulated under local enactments. In 1880 the enactment in force was the Madras Act V of 1869, which was amended by the Amendment Act of 1882. As there was great diversity in the jail rules in different provinces it was considered necessary to secure uniformity and the India Act IX of 1894 was therefore passed. In 1876 many changes were introduced in the administration of the jails in the Madras Presidency. Prisons were rebuilt with the result that it was possible to provide very considerable varieties of intramural labour to suit the different class of prisoners. Cellular accommodation was started in order to separate habituals from other classes of prisoners. Two jail committees were constituted, one in 1888–89, and the other in 1919, to consider improvements in the administration of the Jail Department. Many changes of policy have been introduced into prisons based largely on the recommendations of the Committee of 1919 which laid down that the aim of prison administration should be to effect such a reformation in the character of the criminal as to fit him to take his place in society and become a useful citizen.

(1) The incorrigibles have been separated from the casuals. The incorrigible habitual offenders are segregated into the cellular jails.

(2) A 'Star Class' of prisoners was formed. These prisoners are carefully selected from the casual class and segregated as far as possible from the ordinary prisoner in order to prevent contamination. They are provided with special quarters and enjoy certain privileges such as recreation after lock-up.

(3) A special division of prisoners was created. It was intended for selected prisoners sentenced to simple imprisonment for whom the ordinary treatment was considered unsuitable on the ground of their education, status and character. Prisoners of this class were kept segregated from ordinary prisoners and given special privileges in regard to diet, clothing, bedding, interviews, etc.

In 1930 the Government of India ordered that convicted prisoners should be divided into three divisions or classes A, B, and C. Prisoners are eligible for class A if (1) they are non-habitual prisoners of good character, (2) they have by social status, education and habit of life been accustomed to a superior mode of living, and (3) they have not been convicted of certain offences specified. This class has taken the place of the special class.

Prisoners are eligible for class B who by social status, education or habit of life have been accustomed to a superior mode of living. Class C will consist of prisoners who are not classified in classes A and B.

Rewards.—Good conduct and large outturn of work are rewarded by grant of gratuities, remission and the consequent hope of early release.

Advisory boards.—Advisory boards to reconsider the sentences of long-term prisoners who are not habituals were constituted in 1923–24 in Central and District Jails. The cases of all prisoners sentenced to periods over three years and who have completed two-thirds of their sentences are considered by these boards who make recommendations for the conditional release of such as are thought to be deserving.

Education.—Elementary education is imparted to all prisoners under 30 years of age and technical education is given as far as possible. Selected long-term prisoners are taught English to enable them to be trained as compositors for employment in the jail printing press.

Each jail has a well-stocked library of good and useful books which are issued to literate prisoners whenever required. A jail paper named the *Howard Journal* containing news of interest on general topics is also published for the information of prisoners. In July 1930 the Government ordered that every jail should be provided according to its size and importance with an ample library of approved English and vernacular books and periodicals for the use of the literate prisoners and that a sufficient number of copies of the *Howard Journal* should be placed in the library for such prisoners and arrangements made in each jail for reading out the news published in the *Howard Journal* to illiterate prisoners..

Industries.—The main object of prison labour is reformation, to enable prisoners to make a living after their release.

Religion—Moral and religious lectures are regularly given in jails and Certified and Borstal schools by honorary lecturers—moulvis and ministers of religion.

Certified schools.—To deal with juvenile delinquency, the Children's Act which is more comprehensive in character than the old Reformatory Schools Act was passed in 1920. While the Reformatory Schools Act applied only to juvenile offenders of the male sex below the age of 15, the new Act applies to children of both sexes below the age of 16. Juveniles dealt with under this Act are sent to junior or senior certified schools according as they are below or above twelve years of age.

The Borstal Schools Act (V of 1926) deals with adolescent offenders. All male adolescent offenders are committed to the Borstal School at Tanjore. In 1929 the District Jail at Palamcottah was converted into a Borstal School in order to find accommodation for the large number of commitments under the Borstal Schools Act.

Aid societies.—The Discharged Prisoners' Aid Society was inaugurated in 1921 with a central committee at Madras and a number of branches in the districts. There are 21 societies in the districts at present.

Ambulance and first-aid training now forms part of the curriculum in all jails and schools. Scout craft forms a special feature of the training in the Borstal schools.

Hospital Jail.—A hospital jail known as the Wellesley Sanatorium Jail was opened at Bellary in 1929 for the reception and treatment of prisoners suffering from pulmonary tuberculosis.

Presidency Jail for Women, Vellore.—In 1930 the Local Government ordered that female prisoners with sentences over three months should be committed to the Presidency Jail for Women at Vellore. Female prisoners with sentences of three months and less to be committed to other jails specified.

The statement below gives particulars of the number of prisoners and the expenditure:—

Jails.

Statement showing the number of prisoners, men, women and children and the expenditure incurred in each of the decades from 1880 to 1930.

On the 31st of December of the year.	Men.	Women.	Children (under 16 years.)	Total number of convicts.	Expenditure. RS.
1880	30,212	1,837	129	32,049	8,87,799
1890	71,668	4,260	456	75,928	8,34,775
1900	1,18,513	5,720	901	1,24,233	8,55,534
1910	1,03,249	4,275	619	1,07,524	9,55,313
1920	1,26,469	4,814	188	1,31,283	19,62,074
1930	1,02,922	3,070	23	1,05,992	21,38,968

NOTE.—The above figures do not include statistics of Reformatory or Certified Schools.

5. LAND REVENUE.

SURVEY.

The work of the Survey Department is mainly confined to the cadastral survey which was commenced in 1858. The object of the survey has been the delimitation of the boundaries of villages and holdings and the preparation of field maps, village maps, taluk maps and land registers giving the number, nature, tenure, area, assessment and reputed ownership of each holding. The following maps are prepared and published by the Madras Survey:—

(a) Field atlases generally on scale 40 inches = 1 mile showing for each field its outer and interior subdivision boundaries, topographical details, measurements and area prepared by the surveyor in field.

(b) Village maps on scale 16 inches = 1 mile showing boundaries of all survey fields, all important topographical details and the total village area.

(c) Taluk and zamindari maps generally on scale 1 inch = 1 mile, showing village boundaries and important topographical details.

(d) Touring maps—one for each district on scale 1 inch = 4 miles.

(e) District Atlas containing a separate map for each district on scales varying with size.

(f) Presidency Atlas on scale 1 inch = 12 miles.

The initial cadastral survey of the ryotwari villages was completed in 1896. Resurveys and revision surveys have been undertaken so that the survey records may correspond with present occupation.

Special surveys.—Collaterally with resurvey the following survey work has also been done:—

(1) Town surveys.

(2) Local fund road survey.

(3) Street surveys in unions.

(4) Survey of wet land in proprietary villages in the deltas of the districts of Godavari, Kistna and Guntur.

(5) Soil block surveys conducted in whole inam villages.

The following statement shows the amount of work done by the Survey Department from 1880–81 to 1929–30:—

Decade.	Government villages.				Non-Government villages.				Soil block survey.	Town survey.
	Topograph. survey.	Cad. sq. m.	sq. m.	sq. m.	visi. surv.	lastra survey.	Manul wet survey.	sq. m.		
1880–81 to 1889–90	17,625	15,813	12,836	139	1,910	628	840	151		
1890–91 to 1899–00	861	13,519	11,655	12,752	2,910	27	1,295	30		
1900–01 to 1909–10	51	846	9,742	7,262	4,008				699	111
1910–11 to 1919–20		113	1,353	3,956						16
1920–21 to 1929–30		535	15,927							

SETTLEMENT.

The greater part of the area of the Presidency is under 'ryotwari' tenure; and the assessment is liable to revision once every thirty years. It is the function of the Settlement Department to conduct original settlements and to carry out the resettlement of districts as the periodical revision becomes due. At an original settlement various elaborate processes are carried out. Lands are classified with reference to their mechanical composition and are further subdivided into sorts or grades with reference to their chemical and physical properties and other circumstances affecting their fertility. The staple product or grain for wet and dry lands in each tract is also determined and the quantity of such product or grain which each sort or grade or soil is likely to yield is estimated. A certain percentage is deducted from such gross produce as an allowance for vicissitudes of season and for unprofitable areas included in holdings. The net produce is then converted into money at the commutation rate which is generally based on the average record price of the staple product during the twenty non-famine years immediately preceding the settlement operations, a suitable deduction being made from such average price on account of cartage and merchants' profits. The cost of cultivation is estimated and deducted from the money value thus arrived at. The rate of assessment is then fixed so as not to exceed one-half of the net money value of the produce. The rate so fixed is further adjusted in the case of dry lands, with reference to the position of the villages in which the lands are situated and in the case of wet lands with reference to the efficiency of the irrigation source.

Prior to 1864 assessments were calculated at a percentage of the gross produce the maximum ranging from 30 to 50 per cent, the average assessment being about 25 per cent. It was laid down in 1864 that the share of Government should not exceed one-half of the net produce ascertained as explained above.

At resettlements it is seldom necessary to repeat these processes; and the work of a settlement party at a resettlement consists of a study of the economic condition of the district, a general overhaul of the registration and other revenue records, and the preparation of proposals for revision of the assessment mainly with reference to a comparison of the prices of the staple crops in the previous twenty non-famine years with the prices on which the expiring settlement was based. It has never been the practice to enhance the rates of assessment to the full extent of the rise of prices; a reasonable allowance has always been made for a higher standard of comfort and increased expenditure on cultivation. This is shown by the following table which gives for each district or portion of a district resettled since 1910 the percentage of increase in prices and the percentage by which the rates of assessment were increased.

With the settlement of the South Kanara district in the year 1904–05, the initial settlement of all the districts in the Presidency

was completed. Resettlement has also been carried out in most districts. There are four settlement parties working at present.

The following is a comparative statement of the area of the holdings and the area actually cultivated, with the land revenue for a series of years:—

Comparative statement of cultivation and settlement of the ryotwari land revenue.

Year.	Holdings.		Actual area cultivated.		Assessment. RS.
	Dry.	Wet.	Dry.	Wet.	
	ACS.	ACS.	ACS.	ACS.	
1880-81	..	15,134,398	3,798,281	12,344,402	3,496,064 8,95,41,622
1890-91	..	17,008,097	4,132,869	13,987,836	3,834,431 4,22,70,859
1900-01	..	18,226,347	4,382,826	14,590,289	4,028,528 5,16,50,371
1910-11	..	19,815,225	5,068,898	15,294,227	4,832,026 6,07,95,183
1920-21	..	20,963,668	5,163,821	15,097,791	4,814,973 6,51,08,579
1929-30	..	22,151,982	5,352,844	15,901,280	5,003,176 7,03,81,755

District and taluks.	Year of resettlement.	Percentage of increase in prices.	Percentage of increase or decrease of the current rates of assessment resulting from resettlement.
1. Ganjam—			
Chicacole ..	1909-10 ..	..	Chicacole— Wet .. + 15·40 Dry .. + 11·09
Berhampur ..	1910-11 ..	Wet 41 .. Dry 41 ..	Manavari .. + 25·92 Berhampur— Wet .. + 26·00 Dry .. + 12·00 Manavari .. + 6·00
Goomsur and Aska.	and 1913-14 ..	..	Goomsur and Aska— Wet .. + 17·00 Dry .. + 12·00 and 17·00 respectively.
2. Vizagapatam—			
Golkonda ..	.. ..	1919-20 ..	Wet .. + 20·10
Palkonda ..	.. ..	..	Dry .. + 20·12
Sarvasidhi ..	.. ..	..	..
3. Bellary—			
Adoni ..	.. ..	..	Adoni— Dry .. + 13·13 Wet .. + 17·19
Alur ..	.. ..	1923-24 ..	Alur— Dry .. + 12·70 Wet .. + 13·34
Siruguppa ..	.. ..	..	Siruguppa— Dry .. + 12·93 Wet .. + 21·57
Bellary ..	.. ..	..	Bellary— Dry .. + 12·75 Wet .. + 20·37

District and taluks.	Year of resettlement.	Percentage of increase in prices.	Percentage of increase or decrease of the current rates of assessment resulting from resettlement.
3. Bellary—cont.			
Hospet ..	..		Hospet ..
Hadagalli ..	..		Tunga-bhadra land + 18.87
Harpanahalli ..	1924-25	Wet 67 .. Dry 117 ..	Harpanahalli ..
Kudligi ..	..		Kudligi ..
Rayadrug ..	..		Rayadrug ..
			Wet, Tunga-bhadra land + 12.66
			Dry + 10.08
4. Anantapur—			
Kadiri ..	1913-14	No increase ..	Kadiri—
			Wet .. — 22.00
			Dry .. + 7.00
Gooty ..	..		Gooty—
	1923-24	Wet 52 .. Dry 62 ..	Wet .. + 20.53
Tadpatri ..	..		Dry .. + 11.43
Kalyandrug ..	1924-25 and 1926-27.	....	Tadpatri—
Anantapur ..	..		Wet .. + 22.91
Dharmavaram ..	1926-27	Wet 119 and 101 ..	Dry .. + 13.57
Penukonda ..	..	Dry 122 to 169 ..	Other taluks—
Hindupur ..	..		Wet .. + 14.15
Madakasira ..	1927-28	..	Dry .. + 00.88
5. Cuddapah—			
Badvel ..	..		Badvel and Sidhout—
	1910-11	Wet no increase ..	Wet .. — 24.00
Sidhout ..	..	Dry 6 ..	Dry .. + 11.00
Pulivendla ..	..		Pulivendla—
			Wet .. — 41.23
			Dry .. + 3.22
Rayachoti ..	1910-11 and 1911-12.	No increase ..	Rayachoti—
			Wet .. — 20.00
			Dry .. + 11.00
6. Chingleput—			
Madurantakam ..	..		Madanapalle—
Chingleput ..	1909-10	..	Wet .. — 3.65
Saidapet ..	..		Dry .. + 2.64
Ponneri ..	..		Chittoor and Chandragiri—
Tiruvallur ..	1910-11	Wet 47½ .. Dry 35½ ..	Wet .. + 10.54
Conjeeveram ..	..		Dry .. + 3.94
7. Chittoor—			
Vayalpad ..	1912-13	..	Madanapalle—
		No increase ..	Wet .. — 3.65
Madanapalle ..	1913-14	..	Dry .. + 2.64
			Chittoor and Chandragiri—
Chittoor ..	..		Wet .. + 9.00
	1914-15	..	Dry .. + 5.00
Chandragiri ..	..		Palamaner—
		Wet Chittoor and Chandragiri 68. Palmaner, 64.	Wet .. + 16.37
Palmaner ..	1915-16	Dry 45 and 46.	Dry .. + 3.00
			Vayalpad—
			Wet .. — 14.00
			Dry .. + 7.00

District and taluks.	Year of resettlement.	Percentage of increase in prices.	Percentage of increase or decrease of the currents rates of assessment resulting from resettlement.
North Arcot—			
Vellore ..			Polar—
Polur ..			Wet .. + 26.08
Gudiyattam ..			Dry .. + 8.83
Walajapet ..	1913-14 to 1915-16.	Wet 66 .. Dry 57 and 70	Gudiyattam, Walajapet and Arkonam—
Arkonam ..			Wet .. + 23.86
Cheyyar ..			Dry .. + 11.49
Wandiwash ..			Cheyyar and Wandiwash—
Tiruvannamalai ..	1919-20	Wet 70 Dry 84	Wet .. + 23.86 Dry .. + 11.49
Tiruvannamalai—			Tiruvannamalai—
			Wet .. + 18.85 Dry .. + 12.27
South Arcot—			
Cuddalore ..	1917-18		Cuddalore—
Tindivanam ..	1918-19		Wet .. + 20.97 Dry .. + 12.12
Gingee ..	1918-19		Tindivanam, Gingee and Villupuram—
Villupuram ..			Wet .. + 19.97 Dry .. + 13.44
Tirukkoyilur ..			Tirukkoyilur—
Kallakurichi ..	1920-21	Wet 75 .. Dry 84 and 75	Wet .. + 18.74 Dry .. + 13.12
Chidambaram ..	1921-22		Kallakurichi—
Vriddhachalam ..	1922-23		Wet .. + 18.53 Dry .. + 12.36
Chidambaram—			Chidambaram—
			Wet— Coleroon tract + 30.23 Non-Coleroon tract + 18.53 Dry .. + 12.52
Vriddhachalam ..			Vriddhachalam—
Erode—			Wet .. + 18.76 Dry .. + 12.83
Bhavani ..	1909-10		Erode—
Coimbatore ..	1910-11		Wet .. + 14.90 Dry .. + 11.16
Ayanashi ..			Pollachi—
Dharapuram ..	1910-11		Udumalpet—
Gobichettipalayam ..			Kollegal—
Palladam ..	1911-12	Wet 32½ .. Dry 55 to 70	Wet .. + 22.00 Dry .. + 11.00
Erode ..	1911-12		Other taluks—
Kollegal ..	1912-13		Wet .. + 19.10 Dry .. + 10.88
Pollachi ..	1912-13		
Udumalpet ..			
Trichinopoly—			Karur—
Karur ..	1910-11		Wet .. + 19.10 Dry .. + 10.88
Trichinopoly ..			Other taluks—
Lalgudi ..	1924-25		Kadarambam—
Perambalur ..	to 1925-26		Wet .. + 23.21 Dry .. + 12.89
Udayarpalayam ..	1925-26		Nirarambam—
Kulittalai ..		139.	Wet .. + 16.80 Dry .. + 18.75
Musiri (portion) ..			
Tanjore—			
All taluks ..	1923-24	Wet 83 .. Dry 96 and 121	Wet .. + 18.29 Dry .. + 17.96

District and taluks.	Year of resettlement.	Percentage of increase in prices.	Percentage of increase or decrease of the current rates of assessment resulting from resettlement.
			Madura—
			Wet—
			Periyar. + 32.88
			Non-Periyar + 37.94
			Dry .. + 14.00
			Dindigul—
			Wet .. + 25.34
			Dry .. + 15.04
			Melur—
			Wet—
			Periyar. + 19.73
			Non-Periyar + 31.21
			Dry .. + 12.88
			Periyakulam--
			Wet—
			Periyar. + 44.38
			Non-Periyar + 24.69
			Dry .. + 15.06
			Tirumangalam—
			Wet .. + 24.33
			Dry .. + 28.87
			Nilakkottai —
			Wet—
			Periyar. + 33.32
			Non-Periyar + 30.57
			Dry .. + 14.96
			Palni—
			Wet .. + 27.35
			Dry .. + 16.21
13. Madura—			
Non-Periyar ..	{ 1915-16 to 1918-19	Wet 64 Dry 123	
Periyar ..	{ 1917-18 and 1918-19	Wet 75.7	
14. Ramnad—	1911-12 Sattur .. Srivilliputtur 1912-13	{ Wet 43 .. Dry more than 20. : {	Wet + 12.18 Dry + 9.30
15. Tirnevelly—			
Srivaikuntam ..	{ 1909-10 and 1911-12	{ Wet 43 .. Dry 22 ..	{ Nanguneri— Wet .. + 11.46
Nanguneri ..	1910-11		Dry .. + 1.22
Sankaranayinar- koil. Koilpatti ..	{ 1911-12 ..	{ Wet 43 .. Dry more than 20. : {	Other taluks— Wet + 12.84 Dry + 9.47

FAMINE.

The general lines of famine administration were first laid down in 1880 on the report of the Famine Commission which reported on the great famine of 1876—78, when twelve districts of Madras suffered heavily on account of the failure of the monsoon. The Government opened relief works; the Bellary-Hubli Railway was constructed as a famine relief work at a cost of Rs. 6,45,710; new roads were constructed at a cost of Rs. 1,98,51,770 and roads were repaired at a cost of Rs. 73,78,943.

The following details will show the cost of the relief works carried out in these years:—

—	Total cost.	Normal value.	Excess due to famine.
	RS.	RS.	RS.
1. Railway (Original)	6,45,710	5,32,327	1,13,383
2. Roads (Construction)	1,98,51,710	71,59,797	1,26,91,793
3. Roads (Repair)	78,78,943	33,87,581	39,91,362
4. Irrigation (Repairs)	39,37,384	25,18,321	14,19,063
5. Miscellaneous Improvements (Original).	6,59,224	3,21,477	3,37,747
6. Do. (Repair).	11,17,709	5,31,238	5,86,471

The net expenditure on account of the famine was Rs. 6,30,92,944 in addition to a loss of revenue of Rs. 1,91,26,000. A Famine Commission was appointed by the Secretary of State; a Committee sat in Madras in 1881; and a Code (Famine Code) was framed for famine administration.

The famine of 1891 and 1892.—There was severe agricultural distress due to the failure of the north-east monsoon of 1890–91—a feature which was most marked in the districts of Cuddapah, Nellore, Chingleput, North Arcot, South Arcot, Coimbatore, Madura, Tinnevelly and Malabar. A late and seriously deficient south-west monsoon in 1891 prolonged and deepened the agricultural distress in Cuddapah, Nellore, Chingleput, North Arcot, South Arcot and Coimbatore. The expenditure incurred by the State by the opening of relief works, the grant of gratuitous relief, and the remission of assessment caused by the failure of the season is shown below:—

	RS.
(1) Costs of works undertaken (including the cost of the special staff) for the relief of distress	16,53,178
(2) Cost of gratuitous relief	64,978
(3) Charge of special establishment not debited to famine relief	1,15,983
(4) Remission of assessment in 1890–91 and 1891–92	40,66,137
Total	59,00,276

The nature of works undertaken for relief of the distress is as follows:—

	RS.
Construction and repairs of roads	8,82,865
Irrigation works—	
By Public Works Department	3,99,745
By Revenue Department	1,92,906
Miscellaneous, viz., water-supply works, forest fencing and removal of prickly-pear	56,592

Unusually large advances were made in the affected districts under the Agriculturists' Loans Act and the Land Improvement Loans Act, amounting to Rs. 15,52,842 in 1891–92 and Rs. 20,55,154 in 1892–93.

The famine of 1896–97.—The rainfall of the south-west monsoon of 1896 was unevenly distributed in Ganjam and Vizagapatam and the north-east monsoon wholly failed. In the districts of Kurnool, Bellary, Anantapur and Cuddapah, the rainfall in both the monsoons was considerably less than the average, but the failure in September and October had a particularly disastrous effect on the black cotton soil tracts.

Total cost of the famine relief is given below:—

	RS.
(1) Direct expenditure (famine relief) ...	98,27,637
(2) Indirect expenditure debited to other service heads	2,25,545
(3) Loss of revenue due to famine	29,25,000
Total	1,29,78,182

Loans were granted under the Land Improvement Loans Act to the extent of Rs. $8\frac{1}{2}$ lakhs while loans under the Agriculturists' Loans Act were Rs. 10 lakhs of which 6·3 lakhs were for the purchase of fodder and 3 lakhs for the purchase of cattle and seed grain. Besides these, forest reserves were opened for free grazing.

A Commission was appointed in 1897 by the Governor-General in Council to examine and compare the system of famine relief sanctioned for several provinces and the measures actually employed during the famine of 1896–97 and to inquire into the degree of success attained by those measures. The Commission submitted a report in 1898 but before full effect could be given to its recommendations, another Commission was appointed in 1901. The recommendation of the Famine Commissions led to the development of railways and other communications, irrigation, agriculture and co-operative societies.

The Famine Commission in 1880 had recommended the extension of the Godavari and Kistna irrigation system and the improvement of Cauvery works. They also suggested new works, viz., the Tungabhadra canal in Bellary, the Rushikulya project in Ganjam, the Sangam project in Nellore, and the Krishnagiri reservoir in Salem. The Tank Restoration scheme for maintenance and improvement of the petty irrigation works was established on the recommendation of the Commission.

The recommendation of the Commission to advance money freely and on easy terms to the ryots on the security of the land led to the enactment of the Land Improvement Loans Act (XIX of 1883) and the Agriculturists' Loans Act XII of 1884 which regulated the grant of loans for agricultural improvements and the needs of the agriculturists. The investigations into agricultural conditions carried out by the successive Famine Commissions of 1880, 1898, and 1901 have resulted in measures of great and lasting benefit to the people. They were landmarks in the history of the agricultural development of India. The recommendations of

the Famine Commission of 1901 relating to co-operative credit were translated into action by the Co-operative Credit Societies Act in 1904.

The Commission also made recommendations for the extension of the railway system and for the development of other communications and internal trade.

The Famine Code which was framed after the great famine of 1876—78 was modified subsequently. With a view to control relief adequately, the Code provides for the previous preparation of a complete and well-considered programme of relief works with detailed estimates showing the probable cost of each work and the number of persons to which it can give employment. The aim is to have ready for every district in which famine is likely to occur a complete programme of sanctioned works of utility, sufficient for all probable requirements and a subsidiary emergency programme of unsanctioned works as a precautionary measure to meet an abnormal demand for relief. The relief works included in the programme consist of (1) public works and (2) village works.

Subsequent famines.—In Ganjam a famine occurred in 1908 owing to a serious failure of rains and village works were opened in parts of the district. The total cost of the relief was Rs. 12,911. Towards the close of 1918 owing to failure of rains distress was felt in parts of the same district and a famine, more severe and longer than that of 1897, developed. The measures adopted for the relief of distress consisted chiefly of the provision of works for labourers and the distribution of cash doles. The total cost of the famine relief operations amounted to Rs. 39·45 lakhs.

In 1921 famine occurred in parts of Kurnool, Bellary and Anantapur owing to the failure of both the monsoons in 1920 and the consequent loss of crops, lack of employment and contraction of credit and private charity. Relief works were started and gratuitous relief was also afforded. The total cost of the operations came to Rs. 11,06,295. In 1923 owing to the failure of the south-west and the north-east monsoons there was a general failure of crops in parts of Ganjam, Bellary and Anantapur. Relief works were opened and the cost of the operations came to Rs. 2,44,930.

Seasonal conditions were unfavourable in Bellary, Cuddapah, Anantapur and Kurnool in 1926—27 and 1927—28 and a total grant of Rs. 4,73,638 was made to the district boards of these districts towards the cost of works intended to provide employment for unskilled labour. Towards the end of 1931, the conditions became unfavourable in Bellary and the Government again adopted for some time the system of giving grants to the district board for the same purpose.

In 1921 a Committee was appointed to revise the Famine Code with a view to make Government relief timely and effective and as a result of their recommendations the provisions of the Famine Code in respect of wages and allowances, the treatment of dependants on test works and the classification of labour were liberalized.

Loans.—The India Act XXVI of 1871 (the Land Improvement Act) was in force till it was superseded by the India Act XIX of 1883 (the Land Improvement Loans Act). Loans under this Act are granted (1) for the construction of wells, tanks and other works, for the storage, supply and distribution of water for the purposes of agriculture; (2) the preparation of land for irrigation, drainage, reclamation from rivers or other waters or protection from floods or from erosion or other damages by water, of land used for agricultural purposes or waste land which is culturable; (3) the reclamation, clearance, enclosure or permanent improvement of land for agricultural purposes. [The interest charged was altered from time to time. It was fixed at $6\frac{1}{4}$ per cent in 1930–31 and at $7\frac{1}{2}$ per cent in 1931–32.]

2. In 1884, the Agriculturists' Loans Act (India Act XII of 1884) was also passed. Loans under this Act are advanced for the purchase of seed grains and of cattle and stallions required for breeding or other agricultural purposes, for the rebuilding of houses destroyed by fire or flood, and for other agricultural objects such as the purchase of fodder for domestic and agricultural cattle, the erection of sugarcane mills, indigo vats and similar appliances for dealing with raw agricultural produce. [The interest charged was altered from time to time. It was fixed at $6\frac{1}{4}$ per cent in 1930–31 and at $7\frac{1}{2}$ per cent in 1931–32.]

3. Rules have been framed under the two acts. Under the Land Improvement Loans Act special rules were made for loans given for constructing wells, with a view to help the ryots in districts which were peculiarly liable to draught. These special rules were in the first instance introduced in the Ceded districts in 1886 but they were extended to other districts in 1891.

4. Under the Agriculturists' Loans Act provisions were made for grant of loans for the relief of distress. The maximum amount is Rs. 200 in each case. The loans are free of interest and repayable in three years.

5. The following statement shows the amounts sanctioned under the Land Improvement Loans Act and Agriculturists' Loans Act and the total amount outstanding at the end of the year for a series of years:—

	The Land Improvement Loans Act.			The Agriculturists' Loans Act.		
	Amount of loan. RS.	Amount of loan outstanding at the end of the year. RS.	Amount of loan. RS.	Amount of loan outstanding at the end of the year. RS.		
1880–81	10,000	3,51,993	..		
1890–91	8,88,203	6,11,844	46,866		86,821
1900–01	2,13,568	35,04,121	90,137		2,25,562
1910–11	2,74,068	81,85,636	3,80,035		13,58,804
1920–21	7,45,903	83,68,520	8,81,686		32,43,498
1929–30	4,98,869	74,62,388	9,82,255		56,10,907

6. OTHER REVENUES.

EXCISE.

The excise revenue in Madras is derived from the manufacture and sale of intoxicating liquors, and sale of opium and other drugs. The intoxicating liquors are country spirit, toddy, locally manufactured beer and foreign liquor and imported wines and spirits and beer. In Madras country spirit and toddy are the main sources of revenue.

Act XIX of 1852 securing the abkari revenue of the town and suburbs of Madras and Act III of 1864 securing the abkari revenue beyond the limits prescribed by the Madras Abkari Act of 1852 as amended by Act V of 1879 (Madras) were in force till Act I of 1886 was introduced. The supply of liquor was at first regulated by the 'farming system.' This system was replaced by 'the improved excise system' in 1874 under which the monopoly of supply of arrack or toddy in each district was given to one contractor subject to the condition that he paid duty on every gallon of spirit issued and guaranteed a minimum revenue to Government. It was found that this system was responsible for a serious growth in illicit practices. As all the shops were in the hands of the manufacturer and as he had to pay duty only on the quantity issued to the vendors it did not matter to him if the shops sold illicit liquor. Further the renter failed to maintain the preventive staff required to put down the illicit practices fostered by the improved excise system.

Recognizing these evils the Government in 1884 appointed a committee to examine and recast the whole excise administration of the Presidency and it was the report of the Committee that led to the passing of Act I of 1886. In 1886 the improved excise system was replaced by what was called 'the free supply system' which was one of free competition among the licensed distillers in respect of manufacture and supply. This system led to unhealthy competition and finally to the danger of a monopoly. The system was therefore abandoned and by 1900 the 'contract distillery system' was adopted which still continues. The main features of this system are—

- (1) The privileges of manufacture and vend are entirely separated.
- (2) The manufacturer is given the privilege of supply of a fixed area at a definite rate per gallon.
- (3) The Government supervise the processes and see that the liquor is pure.
- (4) The liquor is issued from a central source of supply.

(5) The right of retail sale is disposed of by auction.

(6) The prevention of illicit practices is left in the hands of Government.

This system is in force throughout the Presidency except in some portions of the Agency.

Toddy.—Fermented toddy is taxed by means of fees payable for the right of retail vend and also by means of the tree-tax system under which a fixed fee is charged for every tree from which it is intended to draw fermented toddy.

Foreign liquor.—For the sale of foreign liquor for consumption on the premises, tavern licences are granted, the fees being determined by auction, but wholesale licences and retail licences for consumption off the premises, for refreshment rooms, bars, etc., are granted on payment of fixed fees.

Opium and ganja.—The sale of opium is administered under India Act I of 1878 and that of ganja under Madras Act I of 1886.

The right of retail vend to the public is generally sold by auction.

The Indian Excise Committee of 1905–06 was appointed to examine the excise administration of each province and suggest such alterations as might be desirable. The Committee came to the conclusion that the contract distillery system as existing in Madras was the best. As regards the method of taxation they suggested that the fixed duty should be the main factor in taxation and that the existing rates of still head duty could be increased without giving rise to uncontrollable illicit practices.

Government policy in excise matters.—The policy followed for a long time has been one of securing a maximum revenue from a minimum consumption subject to the following conditions:—

(1) Any extension of the habit of drinking is to be discouraged.

(2) Taxation is to be as high as possible without encouraging illicit practices.

The steps taken to give effect to this policy are—

(1) Reduction of the number of shops.

(2) Restriction of the limit of private possession.

(3) Reduction of the strength of liquor issued.

(4) Gradual increase of the issue price of opium and duty on country spirits and on hemp drugs and tree-tax.

(5) Removal of shops from the roadside.

(6) Association of non-official persons by appointment of licensing boards and advisory committees.

(7) Increase of control.

Reduction of the number of shops.—The statement appended shows the reduction in the number of shops for country spirits, toddy, and opium. An experiment of closing all arrack shops in toddy drinking areas has been tried from 1st April 1924 in two

taluks in Tanjore district, one taluk in Ramnad district, one taluk in Tinnevelly district and one taluk in Salem district. The experiment was extended to one other taluk in Ramnad district from 1st April 1929. In order to ameliorate the condition of the hill tribes on the Nilgiris an experiment has been tried in that district since 1st April 1924 by which the sale of liquor of any kind to any member of the hill tribes is prohibited except on a medical certificate signed by a registered medical practitioner.

Restriction of the limit of private possession.—In 1929–30 the limit of possession of arrack was reduced to 4 drams throughout most of the Presidency.

Reduction of the strength of country spirits.—In 1905 the bulk of the liquor sold in the Madras Presidency was of a strength of 30° U.P. though considerable quantities were sold at 20° U.P. As a result of the report of the Excise Committee of 1905–06 the sale of 20° U.P. liquor was gradually abandoned in Madras. In 1914–15 the strength of the liquor generally issued was reduced from 30° to 32° U.P. In 1917–18 it was further reduced to 34° U.P. to 35° U.P. in 1918 and to 38° U.P. in certain districts in 1925–26. In the same shops both 35° U.P. and 60° U.P. liquor were sold for some time, but the weak liquor was not in much demand. So in 1918–19, 35 shops for the sale of 60° U.P. liquor only were opened, and in 1919–20 35° U.P. liquor was replaced by 60° U.P. in 53 others shops in 11 districts, but the scheme was given up from 1st April 1921 as 60° U.P. liquor attracted only a limited class of consumers.

Reductions were made in the hours of sale. Collectors have been authorized with the previous approval of the Commissioner to insert special conditions in licences providing for the closure of shops during fairs and festivals and on market days.

Advisory Committees and Licensing Boards.—Their function is to advise about the number and location of all kinds of abkari shops. They were first formed in 1909, when they were confined to municipalities. In 1914 they were extended to 96 specified unions. In 1917 the constitution of the committee was broadened. A further extension was made when Collectors of districts were authorized to form advisory committees in all unions having a population of 8,000 inhabitants. In Madras a much fuller measure of local control was conferred by the establishment in 1918 of an excise licensing board. In 1925–26 the Government accepted the recommendation of the Standing Advisory Committee for Excise to constitute licensing boards in Madras and major municipalities, and excise advisory committees in revenue divisional areas with non-official majorities. Licensing boards have been formed in 16 municipalities (including Madras) and committees in 77 revenue divisional areas.

In 1928–29 a special Government organization known as the “Central Propaganda Board” was constituted to carry on propaganda throughout the Presidency against the use of alcoholic

liquors and intoxicating drugs. A sum of 4 lakhs for the purpose was provided in the Budget Estimate for 1929–30 and committees have been formed in each district for intensive work. The object of the scheme is to create an active public opinion throughout the Presidency against the use of alcoholic liquors and intoxicating drugs in order that any temperance or prohibition measures or legislation undertaken for attaining the goal of total prohibition may have the co-operation and support of the general public. The scheme was abandoned from 1st October 1931.

The following statements show the issue price of opium, duty on arrack and the tree-tax from 1906–07 to 1930–31 and also the number of shops for arrack, toddy and opium.

Statement showing the issue price of opium, duty on arrack and tree-tax.

Period.	The price of opium per seer.	Average rate of duty on arrack per proof gallon.	Tree-tax for coconut in the major portion of the Presidency.
1906–07	30 13 9	4 5 9	3 0 0
1910–11	29 0 0	5 2 8	3 6 0
1914–15	39 0 0	6 0 3	3 12 0
1920–21	50 0 0	8 6 9	4 8 0
1924–25	70 0 0	8 15 2	4 8 0
1929–30	80 0 0	9 8 0	5 10 0
1930–31	80 0 0	9 14 0	5 10 0

Number of shops.

Period.	Arrack.	Toddy.	Opium.
1906–07	10,239	18,684	1,121
1910–11	8,900	15,829	1,028
1914–15	7,619	13,169	740
1920–21	6,008	10,163	603
1924–25	5,815	10,482	605
1929–30	5,688	10,253	559
1930–31	5,554	9,916	553

STAMPS.

The stamp revenue is derived from two main classes of stamps, judicial or court-fee stamps and non-judicial or revenue stamps. The law regarding judicial stamps is India Act VII of 1870 (the Court-Fees Act) as amended by Madras Act V of 1922. The Court-Fees Act imposes fees on plaints, petitions and other documents filed before civil, criminal or revenue courts. The law regarding non-judicial stamps is contained in India Act II of 1899 (as amended by Madras Act VI of 1922). The Stamp Act imposes duties on commercial transactions recorded in writing such as conveyances, bonds, cheques, bills of exchange and the like.

The administration of the Stamp Department is vested in the Board Separate Revenue Department. The management of the stamp revenue in each district is vested in the Collector of the district.

The following statistics show the fluctuations in receipts in six decades:—

	RS.
1880–81	54,72,338
1890–91	64,44,869
1900–01	85,65,910
1910–11	1,21,15,109
1920–21	1,80,18,456
1930–31	2,30,05,681

REGISTRATION.

The department of registration deals with the registration of documents and their correct assessment to stamp duty. The present system of registration of documents was introduced by the Indian Registration Act of 1864 as amended by Act III of 1877, XII of 1879, VII of 1886 and XVII of 1899. These Acts were consolidated by the India Act XVI of 1908.

The statement appended below (columns 2 and 3) shows that there has been a steady increase in the number of registration of offices. The increase in the number of District Registrars is due to the policy of lightening district charges in order to facilitate closer supervision and control by the district head. The increase in the number of Sub-Registrars is due to the fact that a very large number of sub-offices has been opened in order to give relief to over-weighted officers and to provide additional facilities for the public to register their documents. Column 4 gives the number of documents registered and shows that there has been a steady increase in the number of registrations consistent with the facilities afforded for registration. To suit the convenience of the registering public the jurisdiction of existing sub-districts has often been adjusted by the transfer of villages from one sub-district to another. Temporary joint Sub-Registrars are appointed to cope with emergencies in particular months. Other facilities afforded to the registering public are—

(1) The department undertakes searches and grants copies of certificates of encumbrances. The production of such certificates is compulsory in connexion with applications for the execution of court decrees relating to immovable property and with applications for the grant of State loans. Column 5 of the statement shows the number of such applications. There has been a steady increase except in 1910 and in some years previous to 1910. The decrease in those years was due to the relaxation of the rules regarding the production of such certificates; but consequent on the lowering by the High Court from Rs. 500 to Rs. 100 of the limit of the value of property in respect of which the production of encumbrance certificate is compulsory in court sales, there is noticed an increase which affords sufficient evidence of the increasing degree in which the registration records are consulted by the public.

The register of holdings was introduced in the year 1925. Under this system registers of holdings are prepared and maintained in registration offices so as to exhibit in one view in a register all registered transactions affecting a particular property for a number of years, so that the encumbrances, etc., may be readily ascertained. The system is calculated to promote the convenience of the public by avoiding delays in the grant of encumbrance certificates. It is in force in 23 districts.

(2) The itinerating system of registration was introduced in 1922 in special areas to afford greater facilities to the registering public and the system is extended to other places from year to year.

(3) In 1885, the Government ordered that the special registration machinery should be utilized to facilitate revenue registration and directed that in every case of complete conveyance, the necessary application for transfer of revenue registry should be obtained from the parties and forwarded to the Revenue officers for disposal. This system has helped the public and the Revenue Department in effecting quickly transfers of registry.

The system of photo-copying of documents presented for registration was introduced in this Presidency in September 1930 as an experimental measure in the Madras-Chingleput district. It has since been extended to a few other offices. The system is considered to be more economical and advantageous both to the public and the department. The new system unlike the manuscript copying ensures the absolute accuracy of the copy made.

Statement showing the number of District Registrars, Sub-Registrars, number of documents registered, total income, etc., in the six decades.

Year.	Number of district registrars.	Number of sub-regi- strars.	Number of documents registered.	Number of applica- tions for certificates of encum- brances.	Total income. (gross.)
1880	21	267	414,214	14,912	5,69,212
1890	22	359	762,471	33,071	10,79,397
1900	*21	413	967,030	50,569	14,43,194
1910	22	446	1,236,712	12,472	19,20,834
1920	31	560	1,561,935	50,569	32,18,637
1929	33	618	† 1,463,039	107,878	35,29,920
1930	33	626	1,324,518	112,189	32,58,869
1931	28	626	1,115,971	114,202	29,46,677

* The Registration offices in Chingleput and Madras were amalgamated.

† The decrease in this year is mainly due to fall in prices of coconuts and pepper, in Malabar, and the pendency of the land tenure question in the Legislative Council in connexion with the Malabar Tenancy Bill and to the failure of cotton crop and the fall in the price of paddy in some other districts.

7. FORESTS.

The introduction of the present Forest Department and of the technical management of the State forests may be said to date from 1883 in which year Act V of 1882 (the Madras Forest Act) came into force. The policy adopted was to conserve and as far as possible improve the forests, especially on mountain and hill slopes, where forest growth can exert its greatest influence on local economic conditions, and to manage them both as a source of revenue to Government and for the general benefit of the agricultural population. It was found necessary to introduce an Act under which the selection and resettlement of the very large area of forest required to carry out the policy would be given a legal status. Hence Act V of 1882 came to be introduced. In 1913, in accordance with the recommendations of a Special Committee appointed to consider the future treatment of village forests the following classification was made:—

- (1) Forests to be preserved mainly for climatic purposes and for the protection of water-sources.
- (2) Valuable forests from which together with those of clause (I) the bulk of the timber and fuel supply has to be met.
- (3) Fuel plantations.
- (4) Village forests which supply small timber and fuel as well as grazing to the villagers.
- (5) Village forests which are useful for grazing purposes during part of the year.
- (6) Small isolated forests barren of growth and impossible of improvement.

The area reserved in the Presidency in 1880 was 806 square miles while at the end of 1930—31 it was 18,963 square miles.

Forest panchayats.—The Forest Committee of 1912 emphasized the need for reducing to a minimum the contact between the forest subordinate and the villager and recommended that reserved forests should be classified according to their nature and situation and the objects which they are intended to serve; and that the management of forests which were reserved principally or solely to ensure a continued supply of grazing, fuel and agricultural requisites should be entrusted to panchayats composed of resident cattle-owners. In pursuance of this recommendation certain minor forests were transferred to panchayat management in a few districts in the year 1914. In 1923 the Retrenchment Committee dealing with the organization of the Forest Department recommended a general reclassification of reserved forests. Accordingly a reclassification was made and minor fuel and grazing reserves which were useful mainly for the supply of the every-day needs of the ryots came to be termed “ryots’ forests” for the management of which panchayats could be formed. As no special technical knowledge is required for the management of these forests, their control was transferred to the Revenue Department in July 1925.

Forest panchayats are small committees consisting of from 5 to 9 members elected by the general body of cattle owners from among themselves in the village or villages served by a forest, to whom as agents of Government the management of the “ryots’ forests” has been transferred. The elected members of the committee elect a president from among themselves. The transfer of management is designed to give the ryots an interest in the preservation of the areas entrusted to them. Forest panchayats work in accordance with the terms of an agreement between them and the Secretary of State for India in Council (represented by the Collector or the Secretary to the Board of Revenue). The agreement authorizes the panchayats to issue grazing permits up to a specified maximum, to collect grazing fees at stipulated rates and to enjoy all minor forest produce. In return the panchayats agree to protect the reserves from illegal grazing and felling, goat-browsing and fire, and to pay a suitable rent to the Government on the area entrusted to their charge. The rent to be paid to the Government is fixed after carefully estimating the total revenue and expenditure likely to accrue in a year, allowance being made for possible fluctuations. The Government do not seek to make revenue out of improvements effected by panchayats. Any increase in income due to the good management and improvement of the forests by the panchayats will be at their disposal for expenditure in further improvements to the forests. Deserving panchayats who perform their duties satisfactorily are given statutory powers as a ‘forest officer’ for the purpose of preventing the commission of forest offences; of seizing and impounding cattle trespassing in a reserved forest and of compounding forest offences. The total area handed over to forest panchayats up to 31st December 1931 is 3,403.78 square miles.

Forest exploitation.—Up to the beginning of the present century, the selection, demarcation survey and settlement of the Government forests occupied the attention of the department to the exclusion of most other forest interests. When this work was completed the department devoted its attention to the development and exploitation of the commercially valuable forests.

The following statement refers broadly to the experiments in the extraction of timber on modern scientific lines. In 1923, a separate engineering branch of the department was organized on a temporary basis under a Chief Forest Engineer, a Logging Engineer, an Exploitation Officer and a Utilization Officer.

1921-22	...	Russellkonda Saw Mill erected.
1922-23	...	Constitution of the Chenat Nair Exploitation division.
		Appointment of Chief Forest Engineer and Forest Utilization Officer.
1923-24		Chenat Nair Exploitation scheme— Olavakkot Mill sanctioned. (Logging Engineer appointed).

1924–25	...	Olavakkot Saw Mill and seasoning plant erected.
1925–26	...	Beypore Saw Mill sanctioned.
1926–27	...	Sanction of Anamalais Sleeper project and creation of portable Saw Mills in Wynad, South Coimbatore and South Mangalore division.
1926–27	...	Forest Utilization division and Saw Mills and Extraction division formed.

The results of the experiments have shown that such methods are not suited to the Madras forests and that it is not possible to keep the cost of production sufficiently low to sell sawn timber at a profit. The Government have therefore decided that the milling side of the operations should be discontinued and have ordered their closure. The Government have also abolished the posts of the Chief Forest Engineer, the Logging Engineer and the Exploitation Officer.

The following statement shows the output of timber:—

						Tons of 50 c. ft
1890–91	...	...	...	...	...	* 319,414
1900–01	...	...	...	...	...	† 64,469
1910–11	...	...	...	...	...	† 60,829
1920–21	...	...	...	...	...	† 98,540
1923–24	...	...	...	...	...	99,520
1924–25	...	...	...	...	...	99,080
1925–26	...	...	...	...	...	93,260
1926–27	...	...	...	...	...	94,140
1927–28	...	...	...	...	...	96,520
1928–29	...	...	...	...	...	100,480
1929–30	...	...	...	...	...	96,920
1930–31	...	...	...	...	...	85,580

* This figure includes fuel.

† Timber alone.

Plantation.—Planting is a very expensive undertaking and though it is not a practical means of forest restoration on a large scale, years ago it was the only measure to which thought was ever given. The plantations which the department possesses have served an excellent purpose. If it had not been for Government enterprise in planting casuarina along the East Coast, the scarcity of fuel in the coast towns would have reached famine point. Similarly the introduction of the eucalyptus on the Nilgiris Hills is due to Government action and it has had the result of saving the natural evergreen forests and of providing very cheap fuel.

The most remarkable plantation owned by Government is the teak plantation of Nilambur (Malabar district). The plantation was commenced there in 1844 and has been extended year by year.

The evergreen forests exploited in recent years have been left to natural regeneration. Sandalwood is easily regenerated naturally and is spreading in many districts. Natural regeneration by coppice also gives good results.

Artificial regeneration by sowing and planting is carried on in the forests of Nilambur, Mount Stuart, Godavari, Wynad, South Kanara, Tinnevelly, Mudu Malai and Amarampalam. The following statements show the areas dealt with from 1923–24 to 1930–31:—

Progress in reproduction and afforestation under working plans or schemes.

Year.	Area on which regeneration was completed.				Plantations not under working plans
					ACS.
1923–24	3,791
1924–25	2,400
1925–26	2,134
1926–27	2,982
1928–29	1,059
1929–30	646
1930–31	2,219

The Forest College.—A forest college for the training of Rangers was established at Coimbatore in July 1912, before which Rangers could only be trained at the college at Dehra Dun. The course is two years. Students from some of the other provinces, some Indian States and Ceylon are also admitted.

8. COMMUNICATIONS.

(a) *Roads*.—The following statement shows the length of roads (in miles) maintained by the Public Works Department, the Corporation of Madras, the District Municipalities and the Local Boards. In 1880–81, there were about 17,827 miles of roads while in 1930–31 the length was $35,984\frac{1}{2}$ miles.

(b) *Railways*.—The total railway mileage in this Presidency in 1880–81 was 1,510 miles while in 1929–30 the total mileage was 4,986.

(c) *Post offices*.—The number of post offices in 1880–81 was 717 while in 1928–29 there were 4,232 post offices. Of the miscellaneous work performed by the post offices, the business of money order and of savings bank is the most important. A glance at the statement appended below will show the enormous increase in the extent to which these useful functions are carried out.

Statement showing the length of roads (in miles) in charge of Public Works Department, Municipalities and Local Boards in the six decades, and the mileage of railways in the Presidency.

	1880–81.	1890–91.	1900–01.	1910–11.	1920–21.	1930–31.
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Public Works Department .. ..	..	466	502	700	946	1,994
Municipalities—						
Corporation of Madras	170	208	281	291	..	$342\frac{1}{2}$
District Municipalities .. ..	..	..	1,672	1,705	2,300	2,512
Local boards	17,657	20,300	21,698	23,711	27,589	31,136
Total ..	<u>17,827</u>	<u>20,974</u>	<u>23,103</u>	<u>26,407</u>	<u>31,178</u>	<u>35,984\frac{1}{2}</u>

Railways.

Railways in miles ..	1,510 $\frac{1}{4}$	1,747	3,220	3,869	4,077	4,986
----------------------	---------------------	-------	-------	-------	-------	-------

Statement showing the number of Post Offices, the number of articles, for delivery, value of money orders issued, and particulars of Savings Bank account and cash certificates.

	1880–81.	1890–91.	1900–01.
(1)	(2)	(3)	(4)
1. Number of post offices	717	1,764	2,334
2. Number of postal articles for delivery	26,365,898	59,248,150	92,714,466
3. Value of money orders paid .. Rs.		2,27,11,640	4,28,18,124
4. Account of Savings Bank Department.		34,01,834	54,38,592
5. Cash certificate—			
(1) Amount realized by issuing cash certificates Rs.			
(2) Amount paid back—			
Capital Rs.			
Interest Rs.			

MADRAS PRESIDENCY, 1881—1931

	1910-11.	1920-21.	1928-29.
	(5)	(6)	(7)
1. Number of post offices	3,584	3,584	4,232
2. Number of postal articles for delivery. ..	167,658,174	242,489,764	243,783,359
3. Value of money orders paid .. Rs.	64,380,600	127,407,107	141,861,687
4. Account of Savings Bank Department.	Rs. 2,18,83,814	3,05,89,787	5,46,64,847
5. Cash certificate—			
(1) Amount realized by issuing cash certificates Rs. ..	2,90,113	32,85,055	
(2) Amount paid back—			
Capital Rs.	10,41,305	24,14,777	
Interest Rs.	1,01,850	3,72,727	
	11,43,155	27,87,504	

9. TRADE AND COMMERCE—DEVELOPMENT OF PORTS.

In the Presidency there are two major ports, viz., Madras and Vizagapatam, declared so in 1921 and 1925, respectively. Besides these, there are 104 minor ports, of which Tuticorin and Cochin are the biggest and most important. Cochin especially is being developed. In a few years the value of its trade, which is at present in the neighbourhood of 12 crores, will have increased sufficiently for it to be declared a major port.

The following statement shows the progress of the volume of trade at the several ports in the Presidency:—

Statement showing the value of the trade of the Port of Madras
and of the other ports for a series of years.

	Imports.		Exports.	
	Madras.	Other ports.	Madras.	Other ports.
	Rs.	Rs.	Rs.	Rs.
1880-81	4,50,04,437	3,00,88,113	3,31,28,871	7,39,33,362
1890-91	6,64,84,068	5,32,28,167	5,10,80,871	10,54,15,433
1900-01	7,34,39,935	6,54,90,590	5,85,18,118	10,95,11,592
1910-11	10,42,48,340	9,34,70,123	7,51,51,520	18,73,72,502
1920-21	26,14,22,955	13,52,29,892	9,28,68,958	21,35,12,358
1930-31	21,61,15,024	18,53,88,056	15,38,77,150	27,04,07,481

Development of ports—Madras Port—Until an artificial harbour was constructed, Madras was an open roadstead with a surf beaten coast line, communication between ships and shore being effected by boats and catamarans. The present harbour has been formed by two concrete walls projecting into the sea so as to enclose a space of about 200 acres with an entrance from the north-east under the shelter of an arm projecting about 1,400 feet.

It was in 1875, the foundation stone for the present harbour was laid. The works were begun in 1877. Four years later, when nearly completed, the breakwaters were much damaged by a severe cyclonic disturbance. The harbour on its original plan was completed in 1895 with the open 515-foot entrance in the east. As this entrance was being silted up every year a 400-foot entrance on the north-east was opened in 1909 and the old entrance closed. There is a 9-acre boat basin for the safe harbourage of all the small craft of 900 tons and less working in the harbour. It is equipped with 1,400 feet of shallow quay wallings alongside of which barges and cargo boats can lie and it is now extensively used for the landing and shipping of iron as well as for non-dutiable coasting cargo for the handling of which 17 hydraulic cranes have been provided.

The boat basin also contains a slip way for the repair of vessels of 900 tons. An area has also been reserved in which smaller boats and barges can be built.

MADRAS PRESIDENCY, 1881—1931

A canal from the boat basin leads into a 2-acre timber pond equipped with small jetties and cranes and with all facilities for handling the timber trade for which a large storage area is reserved around the pond.

The west face of the harbour has been quayed so that ships can now lie alongside and work cargo direct out of and into the sheds. There are three other quays for the discharge of case oil, coal, horses and cattle. The port is adequately provided with piping through which oil and petrol may be pumped into the merchants' installations from vessels of 26 to 30 feet draught. There are five transit-sheds of an area of about 7 acres. The west quay has also been provided with hydraulic and electric cranes capable of working directly into and out of the holds of vessels lying alongside. Seven large warehouses, three of which are double stories of an approximate area of 364,026 square feet are available at a reasonable rent for the use of merchants.

There is suitable accommodation for passengers of all classes at the south quay.

Cochin Harbour.—For close upon a century, various efforts have been made to open a harbour in Cochin. The Cochin Chamber of Commerce has persistently advocated the construction of a deep water harbour. The question was reopened between 1900 and 1911, but nothing definite was done till 1920 when the Government of India approved of a project, which made provision for dredging a channel approaching the port and through the bar and for dredging 129 acres of mooring space inside the harbour to a depth of 30 feet of low water and making a reclamation of 150 acres in the middle of the backwater. The first cut through the bar 400 feet wide by $32\frac{1}{2}$ feet deep was completed on 30th March 1928. The channel through the outer bar is now 3 miles long by 450 feet wide and has an average depth of 35 feet at low water. The dredging of the mooring area has been completed. Since March 1930 the harbour has been in constant and regular use by all ships. Vessels up to 30 feet draught and 510 feet length can moor inside and a berth is available for taking any ship up to 700 feet long by 30 feet draught.

The railway connection to the port is being converted into broad gauge and it is expected that the work will be completed in 1934.

Proposals are now being formulated for the next stage of the works which include the construction of deep-water jetties with broad and meter gauge railway connections, construction of godowns and transit sheds, the installation of rapid handling cranes and other transport facilities. These improvements are to be made on the new reclamation of which 227 acres have been formed already by dredging from the harbour. It is intended to connect this to the main land by a railway bridge across the backwater. Reclamation is still in progress and when completed it will provide sufficient space for about 20 to 30 large vessels to load or unload at the same time. The harbour scheme has been financed by the

Cochin Port Conservancy Board and the cost up to the present is Rs. 80·7 lakhs. This is apart from Rs. 11·26 lakhs spent on preliminary works prior to the commencement of the capital works.

The Port of Cochin is administered by the Madras Government with the assistance of a Port Conservancy Board consisting of official members of the Madras, Cochin and Travancore Governments and other gentlemen drawn from the mercantile community.

Vizagapatam.—The harbour works at Vizagapatam are being executed by the Government of India through the agency of the Agent, Bengal-Nagpur Railways, who has been appointed administrative officer for the works.

Tuticorin.—Tuticorin is situated well up the almost land locked Gulf of Manaar in Lat. 8°43' N, Long. 78°11' E and is rarely visited by storms. Hare Island upon which the lighthouse is situated affords considerable protection to the lighters and other craft during south and south-east winds and is again protected by Church Island in the north-east monsoon. The port is an open roadstead; vessels anchor according to their draft about 5 to 6 miles from the shore. A boat channel has to be maintained to a depth of 10 feet from the 2 fathoms line to the jetties for cargo boats which range from 30 to 130 tons to ply between the vessels at anchor and the piers and jetties, and the work is seldom interrupted by the weather. The port is equipped with 3 piers and 3 cross-jetties. The South Indian Railway runs parallel to the cross jetties from which passengers and goods can be transhipped to launches and lighters. About Rs. 17,00,000 has been spent since 1911-12 in affording increased facilities for the landing and shipping, storing and clearing of goods. These improvements include 3 new cross jetties, taking over the old customs goods shed, 2 new goods sheds, closing all open sheds, foreshore improvements, i.e., drainage, reclamation, revetment, consolidating reclaimed land for cart and motor traffic to the jetties for shipment of cargo, electric installation, etc.

In 1920 a scheme was suggested to construct a deep-water harbour. The scheme was to construct a dock (to be built in successive stages) with deep-water quays near Hare Island and a dredging entrance channel 30 feet deep extending from the dock to the 5-fathom line. The cost of the first instalment of the scheme was put at Rs. 144 lakhs. It was found when actual borings were taken that the cost of dredging alone would cost 87 lakhs of rupees. The Harbour Engineer-in-Chief prepared an alternative scheme which was estimated to cost about 40 lakhs. The scheme was to construct a narrow land-locked canal through the reef and island with sidings for vessels to lie in and with a small but sufficient turning basin at the western extremity. The scheme was sanctioned. In 1926 after the first year's dredging, the Engineer-in-Chief submitted further proposals and the revised scheme involved an additional expenditure of about 15 lakhs. Meanwhile the port of Tuticorin was separated from the eastern group of ports and a

Port Trust Board was constituted. The Board was prepared to spend up to Rs. 60 lakhs. The revised scheme was referred to the expert engineers who suggested an alternative scheme for the construction of a harbour near the town of Tuticorin at a cost of 140 lakhs. The Port Trust suspended the operations already begun and the Engineer-in-Chief was asked to prepare a separate detailed estimate for the construction and maintenance of a complete harbour (1) at Hare Island, (2) at a site fronting Tuticorin. The estimates prepared are for 123 lakhs in respect of (1) and Rs. 162 $\frac{1}{2}$ lakhs in respect of (2).

In June 1929, the Port Trust Board passed a resolution that it was unable to finance any scheme in excess of Rs. 60 lakhs. The scheme for further development of the harbour was therefore abandoned.

10. INDUSTRIES.

The following table V shows for a series of quinquennial periods the number of industrial concerns in the Province and the number of persons employed in them.

Enumeration of factories and the average daily number of persons employed.

Industries.	GOVERNMENT AND LOCAL FUND FACTORIES.						1931.					
	1912.	1917.	1922.	1927.	1929.	1930.	1931.	Number of factories.	Number of persons employed.	Number of factories.	Number of persons employed.	Number of factories.
Arms and ammunition (cordite).	1	771	1	1,363	1	496	2	1,008	2	907	2	1,058
Arsenal	1	247	1	419	1	316	5	1,447	7	1,604	7	1,741
Canal foundry and workshop.	..	..	..	..	2	267	*	..	..	..	..	..
Iron works and foundry ..	3	579	3	830	3	536	3	148	2	248	2	71
Municipal works ..	1	241	1	216	2	301	5	1,773	6	1,798	6	1,022
Printing presses ..	2	1,453	4	1,687	..	..	4	116	4	99	3	97
Saw mills ..	..	..	..	..	..	..	..	..	..	..	..	..
Store factories ..	..	..	1	163	1	166	..	..	..	..	..	..
Clothing agencies ..	1	328	2	1,508	2	953	1	444	1	198	1	238
Dockyard and Harbour works.	1	268	1	426	1	322	4	636	4	750	4	790
Forage presses ..	..	..	1	72	1	88	3	382	1	70	1	75
Miscellaneous ..	..	..	..	..	..	..	6	1,681	6	697	6	663
Total ..	..	12	15	6,688	22	6,483	31	6,799	31	6,372	30	6,316
ALL OTHER FACTORIES.												
Textiles ..	16	22,113	18	23,854	18	28,268	21	30,314	23	32,866	23	33,849
Cotton factories ..	..	..	..	..	..	..	6	200	11	666	13	662
Hosiery ..	..	2	1,746	..	3	2,594	2	1,64	4	6,274	4	6,211
Jute mills ..	..	..	..	..	..	..	1	6,365	4	483	3	341
Silk ..	..	..	..	..	..	..	1	443	2	149	2	134
Miscellaneous ..	..	..	..	..	..	..	..	..	..	..	..	..
Total ..	..	18	28,859	22	26,755	26	32,086	34	36,121	42	40,418	45

* Treated under Miscellaneous.

Enumeration of factories and the average daily number of persons employed—*cont.*

72

MADRAS PRESIDENCY, 1881—1931

Industries,	1912.		1917.		1922.		1927.		1929.		1930.		1931.	
	Number of factories, etc.	Number of persons employed.												
GOVERNMENT AND LOCAL FUND FACTORIES—<i>cont.</i>														
Minerals and metals—														
Aluminium ..	1	246	1	93	1	268	1	14	1,222	20	1,744	21	1,800	19
Metal works
Iron, brass and steel furnitures.	4	824	6	1,038	9	1,238	8	1,460	8	1,858	9	1,912	9	1,734
Kerosene tinning and packing works.	6	785	9	1,013	8	1,334
Total ..	11	1,805	15	2,144	21	3,318	22	2,652	28	3,602	30	3,512	28	2,963
Engineering and trans-														
Engineering and trans-														
Electrical Engineering Workshops.	3	415	5	656	3	741	3	682
Engineering Work- shops.	3	769	3	296	6	453	15	1,333	15	1,635	15	1,720	14	1,415
Motor and coach-build- ing works.	2	331	2	285	14	1,013	11	1,014	17	1,500	17	1,272	18	1,026
Railway workshops ..	13	10,806	19	14,610	19	16,339	20	18,786	19	15,320	20	15,267	19	13,614
Tramway works ..	1	318	1	460	1	485	1	510	1	432	1	388	1	381
Miscellaneous	1	64	1	62	2	83	2
Total ..	19	12,214	25	15,551	43	18,976	63	22,393	66	19,680	68	19,412	67	17,625

Food, drink and tobacco—										
Batteries biscuit, confectionery.										
Breweries ..	1	33	2	171	2	169	3	170	8	347
Coffee works ..	1	249	13	4,113	16	4,312	15	3,275	14	4,224
Distilleries ..	1	61	1	54	4	148	4	161	5	230
Ice, mineral and aerated water factories ..	2	220	2	218	7	36	6	204	5	172
Rice mills ..	68	3,224	140	8,456	278	10,432	444	15,701	469	16,692
Sugar factories ..	* 6	1,824	*	3,540	7	3,517	7	2,676	7	2,889
Tea factories ..	..	721	2	..	..	..	61	2,205	68	2,690
Tobacco factories ..	2	..	6	905	2	411	2	1,576	4	2,799
Miscellaneous ..	..	..	..	83	9	352	111	2,692	220	4,180
Total ..	80	6,322	176	17,540	324	18,657	655	29,732	786	32,624
Chemicals, dyes, etc.—										
Bone mills ..	2	224	2	558	4	613	5	568	6	784
Oil mills ..	1	57	11	352	10	368	16	417	25	633
Miscellaneous ..	..	..	..	..	1	26	4	148	3	764
Total ..	3	281	13	910	15	1,007	25	1,133	34	2,171
Paper and printing—										
Printing presses ..	21	3,835	29	4,118	86	4,201	47	4,266	67	4,441
Miscellaneous ..	..	..	1	64	1	57	..	..	1	30
Total ..	21	3,835	30	4,182	37	4,258	47	4,266	68	4,471
Processes relating to wood, stone, glass, etc.—										
Furniture workshops ..	6	669	2	223	3	236	8	358	3	365
Cement works ..	1	197	1	240	1	282	..	..	1	194
Saw mills ..	2	208	4	776	4	436	6	619	6	543
Tile factories ..	21	3,357	29	4,749	41	5,984	52	6,381	64	6,687
Miscellaneous ..	1	64	1	50	2	98	2	102	6	262
Total ..	31	4,395	37	6,037	61	7,035	63	7,460	68	7,847

Enumeration of factories and the average daily number of persons employed—cont.

Industries.	Number of factories.	1912.		1917.		1922.		1927.		1929.		1930.		1931.		
		Number of factories employed.	Persons employed.	Number of factories.	Persons employed.											
GOVERNMENT AND LOCAL FUND FACTORIES—cont.																
Processes connected with skins and hides—																
Leather works	1	202	2	157	3	191	4	193	5	191	5	123	6	146		
Tanneries	2	138	3	1,308	5	1,403	6	1,598	7	1,765	7	1,762	6	1,381		
Total	..	340	5	1,465	8	1,594	10	1,791	12	1,956	12	1,875	12	1,526		
Gins and presses—																
Cotton ginning, cleaning and pressing works,	60	5,563	144	12,702	187	14,662	343	18,401	395	20,121	392	19,786	404	19,626		
Jute presses	3	623	4	202	3	360	3	258	1	382	3	260	1	31		
Miscellaneous	1	58	3	83	2	68	1	66	2	41	
Total	..	63	6,186	148	12,904	191	14,980	349	18,742	398	20,571	396	20,111	407	19,998	
Miscellaneous—																
Gas works	1	113	1	46	1	36	1	27	1	18	
Jewellery workshop	1	242	1	379	1	464	..	3,394	..	2,703	..	2,462	..	2,064		
Rope works	6	1,690	6	1,350	5	2,503	6	625	10	767	11	798	12	728		
Miscellaneous	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total	..	6	1,882	6	1,709	7	3,070	12	3,965	17	3,505	18	3,287	19	2,810	
Grand Total	..	268	65,191	492	95,920	745	110,193	1,301	134,074	1,530	143,217	1,525	142,634	1,470	138,049	

In 1906, a Director of Industrial and Technical Enquiries was appointed to make a survey of the industries which existed then and to investigate the possibility of creating new industries. In 1908, an industrial conference was held at Ootacamund at which representatives of leading industrial interests attended. The object of the conference was to consider the best method of developing further the work which had been begun by the Director of Industrial and Technical Enquiries and also to review the question of the improvement and extension of technical education. One of the resolutions passed at the conference was that a permanent department of Industries under the control of an officer named "Director of Industries" should be created. A department of Industries was sanctioned in March 1914. The Indian Industrial Commission recommended the constitution of a Board of Industries to advise the Director and in November 1920, the Government sanctioned the appointment of an Advisory Board of Industries. The functions of the Board were advisory, but all matters of general importance affecting industries or industrial education were laid before the Board.

The Board which was constituted in 1920 for a period of two years automatically ceased to exist towards the end of 1922. It was not reconstituted since the Advisory Committee of the Legislative Council for the departments of Industries and Fisheries had been appointed in the meantime and it was intended to appoint a separate Statutory Board to consider applications for State aid under the provisions of the State Aid to Industries Act. The Advisory Committee of the Legislative Council has since been reconstituted. To facilitate the development of industries with Government aid, the State Aid to Industries Act (1922) was passed by the Government in 1923. Under section 3 (1) (a) of the Act a Board of Industries has been constituted and it is required to submit an annual report on its operations at the close of the financial official year.

The activities of the department are—

- (1) General assistance to trade and industry; collection and supply of statistics and other information useful to commerce and industry.
- (2) Experiments in new industries and industrial processes.
- (3) Management of model industries.
- (4) Assistance to cottage industries.
- (5) Assistance to agriculturists (mainly through the Pumping and Boring sections).
- (6) Industrial education.

The Bureau of Industrial and Commercial Information, which is the intelligence branch of the department was founded as a result of the Industrial Conference held at Ootacamund in 1908. The purpose of the bureau is to provide information on general industrial

and commercial subjects in connection with the existing industries and of projected developments of industries in the Presidency. Among the measures taken to assist individuals or firms anxious to start new industries or extend and improve their business connections may be mentioned—

(i) Furnishing information in regard to new processes of manufacture, use of machines, markets for goods, and sources of supply of materials and commodities, prices and openings for capital.

(ii) Indicating the possible source of raw materials and their suitability to various purposes.

(iii) Assisting to find markets for the finished products by placing manufacturers in touch with consumers. The Bureau is also responsible for the collection, compilation and distribution of statistics relating to commerce and industries.

Among the industries which have formed the subject of experiment, the following are the most important:—

The aluminium industry.—Experiments in the manufacture of aluminium vessels were first made in the School of Arts in the beginning of 1898. From the outset there was a good demand from the Military authorities and from Europeans for aluminium vessels and by establishing agents and subsidiary workshops at various places, the Indian demand was also stimulated. The following figures give the annual receipts and charges of the Aluminium department till it was sold in 1903:—

	Receipts.	Charges
	RS.	RS.
1897–98	...	3,800
1898–99	44,622	45,014
1899–1900	91,492	93,000
1900–01	1,37,452	1,94,937
1901–02	1,84,550	2,34,874
1902–03	1,69,712	2,24,001
1903–04	2,91,583	94,143

In 1900, the Indian Aluminium Company was formed with the view of following up and developing the work of the Department of Industries. For some time the company worked in conjunction with the department to open up a market in India, and in 1903, it was decided that the time had arrived when private enterprise could be left to carry on the business unaided. Accordingly in September 1903, the company took over the Aluminium department of the School of Arts, purchasing all the tools, plant and stock after valuation. The results of the valuation showed that the department had made a net profit of about Rs. 60,000 during the period it had been pioneering the industry.

Chrome tanning.—The question of the intervention by Government in the Madras tanning industry was first taken up in 1903. The question was considered by Government with reference to the economic waste involved in the use of country leather for *karakais* or the buckets used by the ryots for well irrigation. Large number of these buckets were required annually by the ryots. Owing to inferior methods of tanning, the leather perished after a comparatively short period of use and it was suggested that experiments should be made with the object of introducing and popularizing the more enduring chrome leather. In 1903 Government sanctioned Rs. 2,000 on experiments in the School of Arts to determine whether chrome tannery could be successfully carried on in the Presidency. The field of chrome tannery was at that time clear.

The experiments at first were conducted on a small scale, the establishment consisting merely of a tanning maistri, a flesher and three coolies but even in the first year the sales amounted to Rs. 4,779 and enquiries from all parts of India indicated that the venture had aroused considerable interest. The demand for water buckets, however, was not great at first and it was soon found necessary to embark on the manufacture of boots, shoes and sandals. Chrome leather water buckets gradually became more popular and in the year 1908–09, Rs. 9,000 worth of leather was sold for this one purpose, but the main business of the department always consisted in supplying the demand for footwear, especially sandals. Large orders for sandals were obtained from some Government departments. In 1907–08 alone nearly 20,000 pairs of sandals were sold. The scale of these operations necessitated the removal of the department from the School of Arts and, in March 1908, the department moved over to a tannery of its own at Sembiam near Madras. Commercial side of the venture now began to attract attention. At the end of 1908 protests were made by Messrs. Chambers & Co., the Upper India Chamber of Commerce, and the Madras Chamber against the department's interference with private trade. In July 1910, the Government accepted an offer from the Rewah Darbar to purchase the plant of the tannery for the sum of Rs. 50,000, the whole stock also being taken over at a valuation. The transfer was finally effected in the beginning of 1911.

The following figures give the annual receipts and charges till the factory was sold in 1910–11:—

	Rece'pts.	Charges.
	RS.	RS.
1903–04	...	41
1904–05	...	2,200
1905–06	...	4,470
1906–07	...	25,630
1907–08	...	49,435
1908–09	...	51,465
1909–10	...	72,322
1910–11	...	85,357
		88,728
		1,35,464
		99,705
		92,585
		33,627

The net cost to Government was Rs. 55,000 odd spreading over a period of seven years. The chrome leather industry is now firmly established in this Presidency and there is no doubt that the Government of Madras helped materially to contribute towards the result.

Weaving.—Experiments in improved methods of weaving were commenced in the beginning of 1901-02 and a few fly-shuttle looms were set up in the School of Arts with the object of obtaining experience as to their working capacity and data regarding their possibilities. At the same time certain improved methods of sizing, chiefly hand-sizing, were tried. About the beginning of next year, the looms were removed to the Anjuman Buildings and the experiments continued there. At first the manufacture of Madras handkerchiefs was taken up. Subsequently other classes of indigenous goods such as saris and dhotis. These experiments were sufficiently encouraging. In 1905 it was decided to continue the experiment in a properly organized handloom weaving factory. A weaving factory was opened at Salem in 1906 where there was a large weaver population, the objects in view being to ascertain by experiment whether it was possible to improve the conditions of the hand-weavers in Southern India. Experiments had been made with the fly-shuttle loom and various small improvements had been effected and the type of loom ultimately adopted at the Salem Factory was the old English fly-shuttle loom modified as far as possible in the direction of simplicity so as to suit it for the manufacture of indigenous cloth. The use of the fly-shuttle spread with considerable rapidity. The factory was worked on a commercial scale so far as an experimental factory could be run on commercial lines. Besides cotton goods, silk cloths and worsted shawls were manufactured and sale receipts in some years amounted to nearly Rs. 12,000. But this fact proved the factory's undoing. The Chamber of Commerce entered a protest and the factory was closed in September 1910.

Pencil manufacture.—On the outbreak of War some pencil-making plants—relics of former Swadesi enthusiasm—were taken over by the department and pencil manufacture was resuscitated in 1915. The services of an expert were secured and in a comparatively short space of time he got the plant into working order and turned out pencils with a reasonable finish. In 1917, 40,000 dozens of pencils, in 1918, 146,664 dozens of pencils and in 1919, 84,000 dozens of pencils were sold. The factory proved a commercial success and it was handed over to a syndicate in November 1918.

Fruit-preserving Factory.—In 1919, the Government sanctioned the undertaking of experiments in connection with the preservation of fruits. The object of starting the Institute was to create an organized fruit-preserving industry on the Nilgiris coupled with the necessary co-development of systematized fruit culture not only with a view to supply the requirements of a factory but also to supply the public needs and to benefit the

fruit-growers. The results of the preliminary experiments were so encouraging that it was decided to build a factory and instal the requisite plant for fruit-preserving. The construction of the factory building was completed in June 1922. The manufacture of jam on a commercial basis was begun in July of the same year. The operations have had the effect of stimulating the cultivation of fruit trees on the Nilgiris. A can-making plant was also installed with a view to secure suitable jars for jam. The demand for the products of the Institute within the area which it served or could ever hope to serve was quite insufficient and the Government had to incur a loss in running the factory. It was therefore closed at the end of the official year 1925—26.

The quantity of jam and preserved fruits manufactured at the factory is given below:—

	LB.
From September 1921 to 31st March 1923 ...	15,728
,, 1st April 1923 to 31st March 1924 ...	19,052
,, 1st April 1924 to 31st March 1925 ...	38,276

Glue Factory.—After a series of experiments, regular work on manufacture of glue commenced in January 1922. A suitable plant was installed for the sulphitation of fleshings and glue liquors. In the first year 10,650 lb. of glue were obtained, but the factory worked at a loss on the whole and it was closed in July 1924 on the recommendation of the Retrenchment Committee.

Sugarcane-crushing Factory.—A sugarcane-crushing factory was first started at Pallapalaiyam in 1912 and the object of its establishment was as follows:—

(a) to evolve a suitable design of furnace capable of boiling the cane juice into jaggery with megass as fuel, thus rendering any additional or other fuel unnecessary;

(b) to demonstrate to agriculturists the increasing percentage of extraction of juice from sugarcane which results from the use of power-driven mills in place of bullock-driven iron mills. It was under the control of the Director of Agriculture until 1920 when it was transferred to the Director of Industries. The factory worked successfully. The success and economy of power-crushing have been sufficiently demonstrated at Pallapalaiyam and as there was obviously no object in continuing the operations there, the factory was sold for Rs. 6,500 to a Co-operative Industrial Society in 1926.

At present the industrial activities of the department are—

(1) *Kerala Soap Institute, Calicut.*—This is one of the commercial undertakings of the department. The Institute having demonstrated the successful manufacture of soap in the Presidency was considered to be ripe for transfer to private enterprise, but Government have sanctioned the continuance of the Institute up to 31st March 1933 for the purposes of training candidates in the art of soap manufacture and undertaking experiments in connection with the refining and hydrogenation of oils and fats.

(2) *Government Industrial Institute, Madras.*—This was first started at Coonoor under the name of Minor Chemical Laboratory. It was transferred to Madras in 1922 and is now engaged in the experimental manufacture of printer's ink, and of paints including white-lead.

Industrial education.—The Government institutions for industrial education are few and the development of industrial education is provided for largely by aided institutions, the only examples of Government institutions engaged in industrial education being the Government Industrial Institute, Madura, Government Industrial Schools at Bellary and Calicut, the Government Trade School, Mangalore, the Government School of Technology, Madras, the Leather Trades Institute, the Textile Institute and the School of Arts and Crafts.

(a) *Grants-in-aid.*—The control of the industrial work in aided schools was transferred to the Director of Industries in 1910. A full-time Inspector of Industrial Schools was appointed in 1919. The development can be seen from the following table:—

Year.		Number of schools aided.	Number of pupils on the roll.	Governmen
				grant.
1910–11	43	2,094
1915–16	37	1,916
1920–21	37	1,696
1925–26	52	2,943
1929–30	67	5,551
1930–31	67	5,849

* Figures not available.

(b) *Government institutions*—(1) *The Leather Trades Institute.*—This was opened in 1915 with the object of improving the method of manufacturing, while the conception of the school course was that it should consist mainly of practical work in the school tannery, the practical work being supplemented by a measure of theoretical instruction. Arrangements were made in 1925–26 for the conduct of an English lecture class on Madras methods of tanning for professional tanners and others interested on the trade. In 1926 a class for the training of maistris and tanning operators was started at Pallavaram. The Institute, however, failed to attract much attention and the strength fell, till it was decided by Government in January 1930 that the Industrial side of the Institute should be abandoned. To carry out the function of the Institute as a centre for the provision of general advice, research, and practical guidance to tanners and for the conduct of analysis of bark, chrome, etc., it was decided that the Leather Trades Institute should be continued under its present name. One of the duties of the staff under the new arrangement will be periodically to visit the tanners in the mufassal with a view to correct irregularities and adulteration, to demonstrate to the tanners on the spot the advantages of improved methods and to give advice in cases where difficulties in actual tanning arise.

(2) *School of Arts and Crafts*.—The school was transferred to the control of the Industries Department in 1920. It was designed to provide training in arts and designs as applied to various industrial crafts which were capable of artistic treatment. The number of pupils on the rolls for a series of years is given below:—

1920—21	241	1926—27	533
1921—22	234	1927—28	498
1922—23	259	1928—29	516
1923—24	337	1929—30	315
1924—25	443	1930—31	262
1925—26	494	...	

The fall in the number on the rolls in 1929—30 was due to the stoppage in admission in the later part of the year, the removal of pupils who had been in the school for over five years and the abolition of part-time classes. This restriction of numbers was recommended by a committee on the reorganization of the school in 1929. The fall in the total number on the rolls in 1930—31 is due to the fact that the number of pupils in each class has been restricted and that admissions are now made only once a year.

(3) *Government Textile Institute*.—It was originally intended to utilize a portion of the Madura Institute for the purpose of training head-maistris and weavers, but as the weaving block of the Institute proved to be ill-designed, the Government sanctioned the opening of a Textile Institute in Madras in 1922. The Institute provides two courses of instruction—the supervisor's course which extends over a period of two years and is designed for those who intend to become teachers in weaving schools and managers of weaving factories and embraces both the theory and practice of textiles, the artisan course in various subjects which is purely practical and is intended to turn out competent men suitable for employment as maistris in handloom factories, demonstrators in schools and craftsmen. The instruction is given free and six scholarships each of the value of Rs. 20 per mensem and 20 scholarships of Rs. 12 per mensem each are awarded. As the Institute was successful in its work, it was placed on a permanent basis from 1st April 1926. The Institute was for a time engaged in the work of training maistris for the peripatetic weaving parties and providing teachers for manual training classes, industrial schools, jails and reformatory weaving schools. This demand having been more or less fully met, the scope of the Institute has been enlarged and one of the main objects of the Institute at present is to train the men necessary for the urgently needed organization of the handloom weaving industry.

(4) *Madras Trades School (now styled Government School of Technology)*.—The School was started in 1916 with the object of supplying the industrial public with intelligent and skilled engineers, mechanics, electricians and plumbers equipped with sound theoretical and practical knowledge. The subjects taught are (1) Mechanical Engineering, (2) Electrical Engineering, (3) Plumbing,

MADRAS PRESIDENCY, 1881—1931

(4) Electrical Wiring, (5) Mechanical Drawing, (6) Printing. The printing classes were opened in 1925 for the benefit of the more intelligent of the young men and the learners employed in the various presses.

In 1926, a preparatory section to the school was started. Instruction is given partly in English and partly in vernacular. The subjects taught are English, Arithmetic, Elementary Science, Drawing and Carpentry. The strength of the main school for a series of years is as follows:—

1918–19	250	1925–26	...	...	478
1919–20	370	1926–27	...	...	408
1920–21	250	1927–28	...	...	425
1921–22	145	1928–29	...	...	566
1922–23	217	1929–30	...	...	578
1923–24	347	1930–31	...	...	580
1924–25	458				

The name of the school has since been changed from 1st April 1931 into "Government School of Technology, Madras," and Diplomas styled L.M.E. and L.E.E. are granted to men who pass the Mechanical and Electrical Engineering courses.

(5) *Government Industrial Institute, Madura.*—Until 1920, the Institute was called the Madura Technical Institute with three sections, viz., the Industrial section, the Dyeing section and the Weaving section. The scheme of education was then revised and the revised scheme involved the provision of a five years apprenticeship in woodworking, metal-carving and short courses in oil-engine tending and motor-car driving and mechanism.

Besides the above Institute three Government Industrial Schools were opened in 1929, one at Calicut, the other at Mangalore and a third at Bellary.

Scholarship schemes.—The department administers the following scholarships:—

(1) Eight scholarships tenable abroad.

(2) Fifteen scholarships tenable at the Indian Institute of Science, Bangalore.

(3) Twenty scholarships at the Victoria Jubilee Technical Institute, Bombay.

(4) One scholarship tenable at the Indian School of Mines, Dhanbad.

(5) Sixty scholarships tenable for a period of five years to pupils learning trades in various recognized industrial schools and work classes.

Peripatetic weaving parties.—The Government appointed two peripatetic weaving parties in 1913 and 1914 to introduce improved methods and appliances among weavers in the several weaving centres. Their number was increased to ten in 1920. Each party

consists of a head-maistri, an assistant maistri and three weavers. The efforts of these parties were principally directed (1) to persuade the local weavers to adopt the fly-shuttle slay and to carry out the necessary alteration in the country looms to enable this to be done, (2) to educate weavers to weave fine cloth.

The number of the parties has been reduced to five. The efforts of the parties are now directed chiefly to the improvement of the preparatory processes, the demonstration of the hand-driven hot air sizing machine in selected weaving centres.

The following figures show the statistics regarding the cotton mills, jute mills and hosiery mills for the last four years:—

Year.			Number.	Number of spindles.	Number of looms.
<i>Cotton Mills.</i>					
1927-28	...	...	18	600,000	4,400
1928-29	...	...	21	640,000	4,700
1929-30	...	...	21	669,664	4,938
1930-31	...	...	19	697,564	5,039
<i>Jute Mills.</i>					
1927-28	...	...	4	17,684	753
1928-29	...	...	4	17,244	807
1929-30	...	...	4	20,600	889
1930-31	...	...	4	20,176	941
<i>Hosiery Mills.</i>					
1927-28	...	...	7		
1928-29	...	...	5		
1929-30	...	...	9		
1930-31	...	...	20		

Industrial Engineering.—The work of the Engineering Branch consists mainly of the conduct of boring operations, the maintenance of pumping installations and industrial machinery already at work, the supply, erection and maintenance of pumping plants suitable for irrigation as well as of industrial machinery and the investigation of applications for loans under the Agriculturists' Loans Act and of certain applications received under the State Aid to Industries Act.

The activities of this section have developed very much. In 1920, there were 1 Assistant Industrial Engineer, 13 Supervisors, 80 boring maistris. In 1930 there was an Industrial Engineer with five Assistant Industrial Engineers one in charge of the Industrial Engineering Workshops, and the other four in charge of four divisions. The subordinate staff consisted of 19 supervisors, 51 mechanics and 226 boring maistris, drillers and apprentices.

Boring operations.—This is an important item of work undertaken by the department. It maintains power drills and hand-boring sets which are used to bore holes on requisition from ryots and on payment of a small fee. The following table shows the number of feet bored in the several districts, the total number of borings made, the number of successful borings and those that proved unsuccessful for a series of years:—

Year. (1)	Number of feet bored. (2)	Number of borings. (3)	Success- ful. (4)	Unsuccess- ful. (5)
1919-20 ..	16,857	402	.	.
1920-21 ..	16,900	497	240	257
1921-22 ..	8,391	178	71	107
1922-23 ..	20,640	.	.	.
1923-24 ..	24,180	625	354	271
1924-25 ..	28,841	694	434	260
1925-26 ..	27,087	504	345	159
1926-27 ..	37,517	768	584	184
1927-28 ..	48,171	843	572	271
1928-29 ..	40,672	746	473	273
1929-30 ..	49,330	936	673	263
1930-31 ..	48,476	691	500	191

11. AGRICULTURE, VETERINARY AND CO-OPERATION.

(i) AGRICULTURE.

Development of the department.—In 1864, 350 acres of land at Saidapet were entrusted to a committee of amateur enthusiasts who undertook to conduct therein (1) a full trial and exhibition of agricultural implements received from England, (2) a full trial of artificial manures and (3) an exhibition to the people of improved systems of agriculture. The soil at Saidapet was not typical of any large or important area of the Presidency; the Committee failed to accomplish anything of value; and in 1871, the farm passed under official control. An attempt to work out a scheme of agricultural education resulted in the establishment of a public agricultural college at Saidapet in 1876. In 1884, the control of the college was transferred from the Board of Revenue to the Director of Public Instruction with whom it remained until the reorganization of the Agricultural Department in 1905–06. In 1885, except for a small portion of which remained attached to the college, the farm at Saidapet was abolished. The Superintendent of the farm was made an Assistant to the Commissioner of Agriculture, for general statistical and agricultural work, etc. From 1887 to 1905 the main energy of the department was devoted to the business of famine analysis, to the tabulation of village statistics and to inquiries on various agricultural or economic subjects in different parts of the Presidency. Much of the Saidapet land was kept on as a dairy farm; but with a fundamental change of policy district farms were opened for the investigation and study of specific problems.

From 1895 to 1897, the area under sugarcane in the Godavari district steadily declined owing to the ravage of “red rot.” In 1898, an Economic Botanist was therefore appointed to investigate this disease. In 1901, he was allowed to lease lands in Godavari to try and find resistant varieties; and a farm was opened in the district in 1902.

In 1898, complaints were received about the deterioration of groundnut. Foreign seeds were imported and distributed through Collectors for three years; but very little good came of this attempt and in 1904 a farm was opened in South Arcot district for the study of groundnut.

In 1902–03, the disease of pepper had attracted attention and in 1904, a farm was opened in the district of Malabar.

In 1901 two farms, one at Bellary and another in Tinnevelly, were opened, largely for the study of cotton.

The recommendations of the Famine Commission of 1901 led to the expansion of the Imperial and Provincial Departments of Agriculture from 1905 onwards. From 1906, the department was placed under the charge of a whole-time Director. An Agricultural Chemist and two Deputy Directors for the district work were also appointed. The College was transferred back to the Agricultural Department. In 1908 Saidapet was closed and the College was transferred to Coimbatore. A Mycologist was engaged in 1910, an Entomologist in 1912 and an additional Botanist was also appointed for economic work on rice and cotton. A third Deputy Director was appointed in 1913. In 1917, the Presidency was divided into seven circles. These were reconstituted into eight circles in 1920, each circle being in charge of a Deputy Director.

The activities of the reorganized department of agriculture may be summarized under the following heads:—

- (1) Agricultural education carried on at the Agricultural College.
- (2) Research mainly concentrated on paddy and cotton and also directed to other crops such as sugarcane, millets, coconuts, groundnut, fruits, potatoes and fodder crops.
- (3) Chemical investigation of soils and manures.
- (4) Demonstration to the cultivator of the results of research and study carried out on plots of the cultivators' own lands and in demonstration areas on agriculturist farms.
- (5) Operations against pests, specially those affecting cotton, pulses of various kinds, groundnut and cholam.
- (6) Livestock and attempts to improve the breed of cattle.
- (7) Introduction of improved agricultural implements.
- (8) Propaganda by means of bulletins, exhibitions and other methods of advertisement.

Research work.—The Agricultural College is also a Research Institute; the specialist staff has been gradually increased and any branch of agricultural science can now be adequately dealt with. The following specialists have their laboratories and plant-breeding stations at the Research Institute:—

- (1) The Cotton Specialist.
 - (2) The Paddy Specialist.
 - (3) The Millet Specialist.
 - (4) The Mycologist who deals with diseases of plants caused by fungi.
 - (5) The Entomologist who deals with insect pests.
 - (6) The Bacteriologist.
 - (7) The Agricultural Chemist.
 - (8) The Systematic Botanist who deals with grasses and weeds.
 - (9) The Oil Seed Specialist who deals with coconut, groundnut, castor and gingelly.
 - (10) The Soil Physicist who deals with problems of soil physics.
- } Deal with these special crops.
- } These two carry out biological and chemical analysis of soils.

Demonstration.—The discoveries made by the specialists are at first tried out on district farms and when they have proved useful and practical, they are introduced to the ryots on demonstration plots on their own lands. This is followed up by organizing propaganda work in the districts so far as the strength of the staff will allow. New processes, new strains, new implements are put in the hands of local Agricultural Demonstrators who explain to the ryots the object of the improvements and induce them to give them a trial on their own lands. Advantage is taken of cattle fairs, religious festivals, etc., to hold small agricultural exhibitions and to give lectures illustrated with magic lantern and distribute departmental literature. Some of the main improvements which have been effected by the department and which are demonstrated and taught to cultivators are the following:—

- (1) The economic planting of paddy and the use of thinly sown seeds-beds.
- (2) The introduction of improved varieties of sugarcane, and strains of paddy, cotton, ragi and cholam, etc., either to increase the actual yield or to resist disease.
- (3) The planting of sugarcane in lines to reduce the number of setts.
- (4) The drill sowing of cotton and other crops to reduce the seed rate and to facilitate inter-cultivation.
- (5) The replacement of leaves from the forest areas by growing green manure crops on the land itself and the use of green dressings as organic manures generally and also to prevent salinity.
- (6) The use of various manures such as fish, bone-meal and oil-cakes as also chemical manures for different crops.
- (7) The introduction of iron mills for crushing canes and improved furnaces for boiling jaggery.
- (8) The introduction of new rotations to improve the land or to increase the crops and profits.
- (9) The use of improved agricultural implements.
- (10) The introduction of improved methods of planting and inter-cultivating coconuts.
- (11) The introduction of improved methods of making and storing cattle manure.
- (12) The introduction of improved methods of dealing with plant pests.

District farms.—District farms were established between 1902–04. At the end of 1910 there were 7 farms, 16 farms at the end of 1920 and 26 at the end of 1931. The statement appended below shows the progress made by the department in popularizing improved seeds, manure and ploughs. The seeds were either distributed free or sold. Since 1924, the department has ceased to buy and stock manure for distribution to the ryots except in a few isolated places where it is not possible for them to get it in any other way. Ryots are now placed in touch with supplying firms or the manure is obtained for them from these firms. Two years

ago the department handed over the distribution of ploughs to private agencies, but the department has again begun to shoulder the responsibility of distributing implements as the cultivators' needs for ploughs and spares are not met:—

Statement showing the distribution or sale of seeds, manure
and implements.

	1910-11. (1)	1915-16. (2)	1920-21. (3)	1925-26. (4)	1930-31. (5)
Cotton—					
(a) Cambodia (in pounds)	4,523	224	121,000	237,204	275,000
(b) Other varieties of cotton (in pounds)	144,810	26,773	128,000	309,853	479,000
Sugarcane (sets) ..	30,000	30,395	257,000	..	400,000
Paddy (in pounds) ..	9,140	45,803	128,000	178,000	404,000
Groundnut (in pounds) ..	7,620	2,485	..	..	3,746
Coconuts—					
(a) Seed-nuts .. ..	..	..	..	6,689	5,610
(b) Seedlings .. ..	..	..	..	2,993	21,480
Manures—					
(a) Green manure (in pounds) ..	77,150	217,366	75,000	241,960	208,000
(b) Fish manure (in pounds) ..	..	..	1,344,000	..	..
(c) Bonemeal (in pounds) ..	..	..	22,400	1,693,440	..
(d) Artificial manure (in pounds) ..	..	..	..	3,012,800	..
Ploughs .. ..	..	34	40	1,713	753

Agricultural pests and diseases—Cambodia cotton.—This is an exotic cotton, the seed of which was brought from Pondicherry and the seeds were tried first at Kovilpatti farm in Tinnevelly district. Every effort was made to spread its cultivation. In 1912 about 60,000 acres of land were under Cambodia which yielded then a profit of Rs. 180 an acre. The cultivation spread more widely. In the years 1918 and 1919 it was noticed that a great deterioration was taking place in the quality of Cambodia cotton. This was investigated and traced to the fact that practically every field was badly infected with two insect pests. Tempted by the high price of cotton, many ryots had left the Cambodia crop on the field for two or three years instead of pulling it up at the end of the year and rotating with another crop. The result was disastrous! The insect pests multiplied all the year round unchecked. The Agricultural Pests and Diseases Act III of 1919 was passed into law and it was promptly put into force in certain localities in 1919. Under the provisions of the Act, the ryots were directed to pull up the crop at the end of the crop season. At first there was some hesitation on the part of the ryots to pull up the crop. Advantage was taken of the jamabandi camps to explain to the ryots the provisions of the Act. Officers of the department were concentrated in the Cambodia area and the ryots were induced to pull out the plants. This is now done as a matter of course wherever the Act is applied.

The provisions of the Act were also extended to the operations against palmyra “bud rot” in the Northern Circars, and to the coconut caterpillar on the West Coast.

The department also made efforts to check the 'Mahali' disease of arecanuts by working in conjunction with the co-operative societies to place chemicals and sprayers at the command of the ryots as cheaply as possible and by a strenuous educational campaign to teach the ryots the correct methods to deal with the disease.

Livestock.—In 1911, a cattle survey of the Presidency was made and as a direct consequence a special livestock officer was appointed in 1916. Three Livestock Research stations are maintained, the largest being at Hosur (started in 1924) which serves the centre, south and west of the Presidency. At Chintaladevi, in Nellore district, a farm is maintained for the study of the Ongole breed (this was started in 1918–19). At Guntur there is a small farm (started in 1923) devoted to the study of buffaloes, while at Coimbatore a milch herd is maintained at the Agricultural College supported by the model dairy for teaching purposes. The ultimate aim of the department is to produce bulls of the best type for distribution in various parts of the Presidency and to rear a sufficient number of them to produce an effect on the country cattle.

The Agricultural College and Schools.—An Agricultural College was opened for the first time in 1876 at Saidapet. The institution was attached to the Educational Department. The main features of the course were the following:—

- (a) The course lasted for three years.
- (b) Candidates for admission must have passed the Matriculation or some equivalent examination.
- (c) There were no fees, but scholarships were given on certain conditions.
- (d) The curriculum was designed to cover a complete course in Agriculture and courses in Chemistry, Geology, Zoology, Botany, Veterinary Science, Surveying, Bookkeeping and Drawing. At the close of the year 1905–06, the control over the College was transferred to the reorganized Agricultural Department.

In 1908 the College was shifted to Coimbatore. A new course of studies was laid down. Neither stipends nor scholarships were given though tuition and quarters were free for students from the Madras Presidency. The number of students was limited to 20 per year.

In 1914, a change in the curriculum was introduced. In that year 40 students were admitted.

In 1920 the following changes were introduced:—

- (a) Complete separation, from the beginning of the certificate and diploma courses with different qualifications for admission to the two courses. Admission to a new three years diploma course has been limited to those who have passed the Intermediate examinations of the Madras University with Chemistry, Physics, or Mathematics or a Biological Science. The qualifications for admission to the two years certificate is limited to those who possess a secondary school-leaving certificate. Government offered stipends

of Rs. 25 a month in order to attract candidates of good qualification. A degree in Agriculture known as B.Sc. Ag. was also instituted.

In 1922 the College was affiliated to the University of Madras. In 1925 the certificate course came to an end leaving only the Degree courses in the College. The number of scholars in 1880 was 34; in 1890, 34; 1900, 42; 1910, 49; and 1929, 125. In 1920 there were 359 applications for admission and 67 candidates were admitted. In 1931, there were 321 applications of whom 45 were selected besides making room for three failed students.

Two Agricultural Middle schools were opened in 1922, one at Taliparamba in North Malabar and the other at Anakapalle. The school at Taliparamba has been functioning while the one at Anakapalle ceased to function from 1928-29.

An Agricultural School was opened at Usilampatti in 1929-30 primarily intended for the benefit of the Kallars under the management of the district board. The Agricultural staff are lent by the department.

(ii) THE CIVIL VETERINARY DEPARTMENT.

Action against cattle disease was mooted in 1864, but only took practical shape in 1881. Prior to 1892-93 the Veterinary branch formed a part of the Agricultural Department and consisted of an Inspector of Cattle Diseases and a Deputy Inspector and Stock Inspectors for district work. In 1892-93, a separate department with executive officers known as Superintendent, Deputy Superintendent, etc., came into existence and the department was under the control of one of the members of the Board of Revenue. The Stock Inspectors were for a term recruited from the Saidapet Agricultural College, but later were put through shorter special courses. For long their number was insufficient and the training incomplete. Proposals for a Veterinary College were then considered in 1890, but the College was not opened till 1903. The establishment of veterinary dispensaries was sanctioned in 1900, but the scheme was held in abeyance pending the selection of properly trained men. Since the opening of a separate Veterinary College it has been possible to procure a sufficient number of trained men for the charge of veterinary hospitals and dispensaries. The dispensaries also have increased. There were only 5 dispensaries in 1904-05, while the number was 20 in 1910-11, 58 in 1920-21 and 118 in 1930-31.

The Veterinary Department has expanded gradually. At present it consists of one Director of Veterinary Services with twelve District Veterinary Officers, each in charge of a circle, 268 Veterinary Assistant Surgeons including 97 touring officers. The veterinary work is carried on in two ways—

(1) By the establishment of Veterinary hospitals and dispensaries; and

(2) by carrying veterinary relief to the door of the ryots by the itinerating staff of the department.

The Veterinary Assistant Surgeons are either in charge of veterinary institutions or employed on touring work. The department administers the following three Acts:—

- (1) The Madras Cattle Diseases Act of 1866.
- (2) The Glanders and Farcy Act of 1899.
- (3) The Livestock Importation Act of 1898.

The methods by which the department attempts to control the spread of the contagious diseases are by applying the Madras Cattle Diseases Act, under which, notification by the owner of a diseased animal is compulsory, the movement of animals can be stopped, cattle fairs closed, and compulsory inoculation enforced; and by carrying out voluntary inoculation.

Veterinary institutions.—Until 1922, the veterinary institutions were under a dual system of control by Government and local bodies, Government contributing part of the expenses of upkeep. In 1922, complete control of all but a few private institutions was taken over by Government. The statement given below gives particulars of the number of dispensaries, the number of Veterinary Assistant Surgeons, the number of in-patients and out-patients in the hospitals and dispensaries and the number of castrations and inoculations and the number of deaths from contagious diseases:—

Statement showing the number of dispensaries, hospitals, the number of Veterinary Assistant Surgeons, cases treated, the number of castrations performed, and the number of animals inoculated and the number of deaths from contagious cattle diseases.

Year.	Number treated at the hospitals or dispensaries.						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1880-81	102,097	..	..	..	..
1890-91	97,541	..	..	..	..
1900-01	76,057	20	20	2,550	18,430
1910-11	37,066	58	58	5,685	57,622
1920-21	99,890	118	125	8,103	154,792
1930-31					7,924

Year.	Number treated by the Touring Veterinary Assistant Surgeons.					(12)
	(8)	(9)	(10)	(11)	Number of cases of inoculation against rinder-pest.	
1880-81	..	..	..	..	..	..
1890-91	..	..	..	..	201	..
1900-01	..	..	..	..	174	..
1910-11	35	772	2,650	354	21,080	..
1920-21	51	13,405	21,153	6,319	68,686	..
1930-31	97	22,545	38,998	15,175	149,016	..

The Veterinary College.—Till the end of 1903 Veterinary Assistants who were called Stock Inspectors received their education at the Agricultural College at Saidapet. A separate Veterinary College was opened in October 1903 and the teaching staff then consisted of an Assistant Principal and a lecturer, the Superintendent of Civil Veterinary Department being ex officio Principal. A separate Principal for the College was appointed in 1909. The staff was increased gradually and the present strength is a Principal and 7 lecturers. There is a hospital attached to the College. A laboratory is also attached to the College where Pathological, Parasitological and Clinical research is carried on. There were 62 students in 1910–11, 94 in 1920–21 and 117 in 1930–31. The receipts and expenditure of the College are given below:—

	Receipts. RS.	Expenditure. RS.
1910–11	11,099	36,222
1920–21	16,141	76,112
1930–31	16,848	1,32,688

(iii) CO-OPERATIVE SOCIETIES AND BANKS.

The aim of the Co-operative Department is to promote the formation of co-operative societies and so to inculcate habits of thrift and self-help among agriculturists, artisans and persons of limited means. It was only when Act X of 1904 (Co-operative Credit Societies Act) was passed that it became possible to make organized attempts on co-operative lines to relieve the indebtedness of the rural population. The first purely co-operative society was registered in the Presidency on the 30th August 1904; and for the next five years efforts were mainly directed to laying sound and enduring foundations.

The provisions of Act X of 1904 were confined to co-operative credit societies. The Act recognized only two classes of societies, rural (agricultural) and urban (non-agricultural). The rural societies were, as a rule, based on unlimited liability and were not permitted to distribute profits among the members. In urban societies the distribution of profits was permitted under certain conditions. During the years that followed there was a rapid increase in the number of co-operative societies. Many new problems sprang up which necessitated the amendment of the law in certain important aspects. Act X of 1904 was therefore amended by Act II of 1912, the most important of the changes being the recognition of societies other than credit societies and the removal of the distinction between urban and rural societies.

In the tabular statement given below, will be found some of the most important figures illustrating the progress of the movement from 1908–09 up to date. The number of societies in 1908–09 was 180, in 1914–15, 1,600, in 1921–22, 7,389, in 1929–30, 15,238 and in 1930–31, 15,042.

	1908-09.	1913-14.	1918-19.	1921-22	1925-26.	1929-30.	1930-31.
1. Number of societies at the end of the year.	180	1,333	3,676	7,389	11,973	15,238	15,042
2. Number of financing banks at the end of the year.		8	26	33	32	* 32	33
3. Number of supervising unions at the end of the year.		7	102	209	346	405	415
4. Number of members of all societies at the end of the year.	15,597	100,537	244,297	461,002	748,783	974,999	981,100
5. Working capital of all societies at the end of the year in lakhs.	RS. 18·19	RS. 123·21	RS. 305·21	RS. 601·11	RS. 1,132·80	RS. 1,799·36	RS. 1,800·52
6. Paid-up share capital of all societies at the end of the year in lakhs.	2·9	11·75	34·70	79·86	153·32	233·68	243·15
7. Reserve fund of all societies including the addition made on account of the working of the year in lakhs.	0·53	6·19	14·65	26·08	56·50	98·51	112·58
8. Loans from financing banks outstanding against primary societies at the end of the year in lakhs.	6·55	51·45	100·97	187·78	333·88	534·24	510·43

* Includes one Central Land Mortgage Bank.

The system under which credit societies are organized, financed and supervised is as follows:—

From the inception of the department it has been recognized that the organization and supervision of primary societies should ultimately be taken over by a non-official agency, the departmental staff confining its activities to its statutory functions of registration, audit, arbitration, enquiry and liquidation. The question of supervision came prominently to notice about 1910 as societies had then become too numerous for the Registrar and his staff to supervise. As a result, the first supervising union of societies was registered in 1910. The number of such unions in 1913–14 was 7, in 1921–22, 209, in 1929–30, 405 and in 1930–31, 415.

In 1918–19 another form of supervising agency appeared in district councils of supervision. Their functions were to co-ordinate the activities of the unions and to supervise the few societies not affiliated to unions. From 1923, organized efforts were made to start district federations, as these councils then came to be termed, in each district. The duties of federations are the co-ordination of the work of local unions, supervision, training, education and general propaganda. The number of such federations increased from 6 in 1923–24 to 24 in 1929–30, and fell to 20 in 1930–31.

Central banks.—For the first few years after the birth of the co-operative movement, the Government helped to finance it, but this soon ceased. To assist in financing the co-operative societies in Madras, the Central Urban Bank was registered in 1905 as a feeder bank whose function was to finance co-operative societies throughout the Presidency. In 1909 the formation of district central banks was found necessary; the object was to finance rural and urban societies. A new variety of central banks came into existence in 1912 having as its object not only the finance but also the supervision and control of affiliated societies. There are now 33 central banks whereas in 1908–09 there were three such banks.

The Madras Central Bank has been converted into an apex bank for the whole Presidency. By 1919, primary societies ceased to be admitted as shareholders. The bank confines its lending operations almost entirely to financing central banks though it takes money from any source.

Land mortgage banks.—The main work of primary societies is the provision of short-term credit required for the current needs of their members. They are not in a position to meet members' needs for long-term loans for land improvement, clearing of prior debts and other similar purposes; nor are the central banks able to help them in this respect. In 1925, the Government approved the organization as an experimental measure, of land mortgage banks on a co-operative basis in four selected localities. These banks were to obtain money from share capital, deposits and debentures. Each bank was to have a working capital of a lakh of rupees and the Government undertook to take up debentures to the extent of 50,000 in each bank; provided that the public first took up the other 50,000. Two such banks were opened in 1925 and two in 1926. Their number rose to 10 in 1926–27 and 37 at the end of 1930–31. Of these, only ten have floated debentures. Government have sanctioned in 1929 the formation of a central organization at Madras to float debentures on the assets transferred to it by the primary land mortgage banks and to finance the banks out of the proceeds of such debentures. An additional staff of two Deputy Registrars and ten appraisers was also sanctioned by Government in October 1929 to enquire into every application for loan and appraise all mortgages tendered. The bank was organized and registered in December 1929.

Provincial Co-operative Union.—Besides these, there is the Provincial Co-operative Union founded in 1914 with the object of assisting co-operative work by every possible means. Its objects are—

- (1) To propagate the principle of co-operation.
- (2) To organize special types of societies.
- (3) To assist the work of local councils and district councils by supervision.
- (4) To serve as the exponent of non-official co-operative opinion in the Presidency.

(5) To undertake such other work as will promote the course of co-operation.

In 1919–20, as the result of a resolution moved in the Legislative Council, advocating the formation of new societies on an ample scale so as to extend the movement to all parts of the Presidency, a great expansion took place. Additional establishments were sanctioned.

The number of societies was in—

1919–20	...	...	5,027	1925–26	...	...	11,973
1920–21	...	...	6,289	1926–27	...	...	18,357
1921–22	...	...	7,389	1927–28	...	...	14,510
1922–23	...	...	8,443	1928–29	...	...	15,086
1923–24	...	...	9,785	1929–30	...	...	15,238
1924–25	...	...	11,141	1930–31	...	...	15,042

In 1924–25 a reorganization of the Co-operative staff was carried out with a view to make the department self-contained, less expensive and more efficient.

In 1915–16, the staff of the department consisted of one Registrar in the Provincial Service cadre, six Assistant Registrars and 60 Inspectors. The staff in 1929–30 is one Registrar in the Indian Civil Service cadre, one joint Registrar, 25 Deputy Registrars, 43 Sub-Deputy Registrars, 64 Senior Inspectors, 596 Junior Inspectors.

Agricultural societies.—Agricultural societies are by far the most important of all co-operative societies. They are of six kinds—

- (1) Credit societies.
- (2) Purchase, purchase and sale.
- (3) Production.
- (4) Production and sale.
- (5) Insurance societies.
- (6) Other forms which consist of
 - (a) Kudimaramat and irrigation.
 - (b) Agricultural demonstration.
 - (c) Land reclamation.
 - (d) Labour contract.
 - (e) Societies for tenants and depressed classes.
Societies for fishermen.
Societies for hill tribes.
Societies for the joint cultivation of land and trading activities.
 - (f) Landholders' lease societies.
 - (g) Salt licences; milk supply.
 - (h) Building societies.
 - (i) Agricultural implements.
 - (j) Weavers' societies.
 - (k) Students' societies.

The following statement of loans given by agricultural societies for a series of years will show the purpose for which the loans were utilized:—

Year.	Number of societies.	Number of members.	Working capital.	Total loans.	Loans for redeem- ption of prior debts.	Loans for produc- tive pur- poses.	Loans for non- produc- tive pur- poses.
					RS. LAKHS.	RS. LAKHS.	RS. LAKHS.
1914-15 ..	..	90,088	64·55	26·44	10·74	15·04	0·65
1917-18 ..	2,271	135,485	97·93	49·69	18·86	29·77	1·06
1920-21 ..	6,289	280,291	187·61	88·44	23·16	63·22	2·06
1923-24 ..	8,308	454,033	320·85	149·05	44·56	100·83	3·64
1926-27 ..	11,436	612,220	501·00	236·57	89·31	143·98	3·25
1928-29 ..	12,947	690,681	629·19	251·18	82·02	164·69	4·47
1929-30 ..	18,106	713,615	677·10	260·80	71·77	182·42	6·61
1930-31 ..	12,967	714,820	669·10	163·50	48·22	112·97	2·30

Societies for depressed and backward classes.—Three different agencies supervise the working of co-operative societies for the depressed and backward classes, viz., the Labour Department, the Special Officer for Kallars and the co-operative societies. The following figures indicate the progress of the transactions of societies in charge of the Co-operative Department:—

	1924-25.	1925-26.	1926-27.	1927-28.	1928-29.	1929-30.	1930-31.
Number of societies ..	714	792	796	1,090	972	879	1,632
Number of members ..	23,552	26,089	27,690	34,378	37,901	37,122	72,369
Paid-up share capital ..	Rs 1,44,831	1,76,214	1,87,988	2,43,013	3,46,396	3,22,035	5,35,573
Deposits of members ..	„ 5,155	17,175	11,177	25,151	38,634	34,116	41,468
Loans from central banks and non-mem- bers ..	„ 6,28,112	8,00,746	6,74,567	8,75,597	8,03,636	7,21,396	8,49,841
Loans from Govern- ment ..	„ 1,362	2,068	6,292	11,379	5,561	2,787	1,76,267
Reserve Fund ..	„ 23,545	42,160	37,034	82,812	1,66,187	1,70,095	2,23,954

Honorary Assistant Registrars.—Honorary Assistant Registrars were appointed as a further step in the association of non-officials with the responsibility for the progress of the movement. In 1924 an agitation was started to abolish these posts. The Government decided to confine the appointments to a few gentlemen for the purpose of supervision of societies in special cases such as those for the depressed classes. They attend to the organization and supervision of societies and also to arbitration work under the specific order of the Registrar. There were in 1929-30 17 honorary Assistant Registrars including the Special Superintendents of Police in charge of the Kallaar Societies in the district of Tanjore and Madura. Their number in 1930-31 was 24.

12. IRRIGATION.

State irrigation works in the Presidency consist of two classes. The first comprises the more important works (productive and unproductive) which have been constructed, restored or improved by the Government at a capital cost of about 15 crores of rupees.

There were 55 works of this class (28 productive and 27 unproductive) in 1930–31 with a total length of main and branch canals of 4,465 miles, of which 1,010 miles are used for irrigation and navigation combined, and distributaries of 10,328 miles. The total area irrigated during 1930–31 was 4,117,474 acres including 532,592 acres of second crop. In 1880 the number of such works was 8 which irrigated 1,783,345 acres.

The second class includes all the smaller tanks and river channels of ancient construction. The Government have taken over their maintenance and devote considerable sums annually for their upkeep. There were about 35,708 such works irrigating 3,395,569 acres in 1930–31 while the irrigated area in 1880 from such sources was 1,248,081.

The great irrigation systems of the Presidency are the Godavari, the Kistna and the Cauvery deltas. The works consist of weirs, by which a sufficient head of water is obtained to irrigate the lands of the deltas; of sluices and regulators by means of which water is conducted to the lands.

The Godavari Delta system.—The system consists of (1) the anicut and headworks, (2) eastern delta, (3) the central delta and (4) the western delta. It has $571\frac{3}{8}$ miles of main canal and $1,995\frac{1}{2}$ miles of distributaries. The capital outlay on these works up to the end of 1879–80 was Rs. 1,06,78,118. An estimate for the complete project of the delta for Rs. 23,84,940—raising the capital outlay to Rs. 1,30,32,653—was sanctioned by the Secretary of State in 1882. The estimate included the provision of efficient drainage, the improvement of the means of distribution in the eastern and western sections and the general improvement of the central section. The project was completed by the 31st March 1890. The area irrigated in 1880–81 was 526,585 acres while after the project was completed the area irrigated in 1891–92 was 642,571 acres of first crop and 91,600 acres of second crop. Large sums are spent every year on improving and maintaining the works (see statement appended) and the capital outlay up to the end of the year 1930–31 was Rs. 1,56,18,439. The area irrigated during the year 1930–31 was 799,350 acres of first crop and 192,999 acres of second crop.

The Kistna Delta system.—The system consists of (1) anicut and headworks and (2) eastern delta and (3) western delta. It has 349 miles of main canal and $21,855\frac{5}{8}$ miles of distributaries. The capital outlay on the works up to the end of 1879–80 was

Rs. 56,30,367. The Secretary of State sanctioned in 1882 Rs. 1,38,99,784 for the delta completion estimate including the outlay already invested. The additional expenditure was for fresh works, viz., new distributaries which would nearly double the irrigated area, for extensive drainage and for the improvement of all the old works. The work was completed by the 31st March 1898. The area irrigated in 1898–99 was 568,109 acres of first crop and 148 acres of second crop, while the area irrigated in 1880 was 274,573 acres. The capital outlay up to the end of 1930–31 was Rs. 1,81,65,221 and the area irrigated in 1930–31 was—

	ACS.
First crop	... ... ... ... ... 805,570
Second crop	... ... ... ... ... 4,970

The Cauvery Delta system.—The river Cauvery divides into two branches about 9 miles west of the town of Trichinopoly, the southern branch retaining the original name, while the northern branch is known as the Coleroon. About 17 miles below the point of their bifurcation, the two branches would re-unite, but for the work called the Grand Anicut. At this point the Cauvery divides into several main canals which themselves again subdivide into smaller channels until the water is spread over the delta in hundreds of distributaries. In order to divide the available water between the main river and the Coleroon so as to provide an adequate supply without flooding the irrigation channels in the delta, five engineering works—the Upper Anicut, the Grand Anicut, the 150 yards calingula, the Cauvery-Vennar regulators and the Vadananagudi surplus—have been constructed. The system has at present, $1,258\frac{1}{4}$ miles of main canal and 3,205 miles of distributaries. The capital outlay up to the end of 1880 was Rs. 11,19,277. An estimate amounting to Rs. 6,88,000 for the construction of regulators to increase the water-supply in the Cauvery and Vennar branches was sanctioned in 1882. The work was closed in 1891. The area irrigated in 1891–92 was 908,616 acres of first crop and 101,943 acres of second crop, while the area irrigated in 1880 was 897,221 acres. In 1898 Government of India sanctioned a sum of Rs. 51,800 for regulators across certain main canals for better distribution of water in the delta. For many years the general difficulty was to prevent the Cauvery from receiving more water than it could carry. The regulation of supply between the two rivers—Cauvery and Coleroon—has been rearranged by the entire reconstruction of the Upper Anicut. The Grand Anicut also has been remodelled at a cost of Rs. 1,33,800 and fitted with shutters so as to assist when necessary in passing surplus water into the Coleroon. Large sums are spent every year on the improvement and maintenance of the system (see statement). The area irrigated in 1930–31 was 880,553 acres of first crop and 97,424 acres of second crop. The capital outlay to the end of 1930–31 was Rs. 71,13,559.

The following statement shows the amount spent on the improvement of the three works of the Godavari, Kistna and Cauvery deltas from 1900–01 to 1930–31:—

Statement showing Expenditure incurred in improving the Works of the Godavari, Kistna and Cauvery Delta Systems from 1900 to 1931.

Year.	Godavari Delta.	Kistna Delta.	Cauvery Delta.
	rs.	rs.	rs.
1900–01	80,456	1,50,195	4,73,014
1901–02	87,353	2,46,944	1,98,923
1902–03	61,593	3,73,833	1,05,695
1903–04	1,28,694	4,51,257	88,494
1904–05	1,80,091	4,35,438	70,505
1905–06	2,07,049	73,340	36,552
1906–07	1,60,309	37,543	1,15,702
1907–08	16,416	1,12,408	70,116
1908–09	24,629	2,48,972	89,722
1909–10	41,994	1,71,102	1,40,253
1910–11	69,146	5,816	1,08,488
1911–12	1,11,811	87,918	53,432
1912–13	1,45,799	55,489	36,773
1913–14	1,28,896	12,554	51,787
1914–15	67,284	1,10,666	71,698
1915–16	1,44,330	73,433	64,524
1916–17	1,24,008	46,254	58,516
1917–18	1,63,422	1,26,586	68,239
1918–19	1,76,244	93,324	32,772
1919–20	1,53,924	41,989	21,959
1920–21	1,99,500	99,140	1,06,980
1921–22	1,90,689	92,57	1,13,001
1922–23	2,86,568	40,175	1,17,874
1923–24	1,46,584	56,472	1,37,901
1924–25	1,04,858	5,68,415	2,45,068
1925–26	2,15,383	2,67,187	6,72,219
1926–27	1,87,934	5,84,818	5,61,513
1927–28	1,50,581	5,81,065	1,92,529
1928–29	1,28,981	2,21,724	2,22,873
1929–30	2,89,308	1,76,252	2,72,694
1930–31	2,66,959	47,646	2,72,217

The next important works are the Rushikulya and Periyar systems.

The Rushikulya system in Ganjam district is a combined system of storage and direct irrigation. It irrigates lands between Aska and the coast. The system is formed by two masonry anicuts across the Mahanadi and Rushikulya rivers. When the supply from these rivers is insufficient it is supplemented by water from two storage works, the Russellkonda and Surada reservoirs. Both these reservoirs are formed by dams of considerable size, that of Russellkonda is across Borunga river while that of Surada is across the Johora and Pathma rivers. The construction of the system was sanctioned by the Secretary of State in 1883 and the work was completed in 1896 with the exception of the Surada river which was opened in 1898. The original estimate was for Rs. 26,01,380 for direct charges and Rs. 2,58,853 for indirect charges. The capital outlay to the end of 1930–31 was Rs. 49,81,519. The area irrigated in

Year.	First crop.	Second crop.
1900–01	80,204	2,164
1910–11	104,111	1,457
1920–21	106,104	1,967
1930–31	108,524	1,040

The Periyar system which came into operation in 1896 is an important scheme of irrigation designed to irrigate a large tract on the north side of the river Vaigai in the district of Madura. The work was sanctioned in 1887. The Periyar river rises in the Western Ghauts on the borders of Travancore and Tinnevelly and runs through Travancore and Cochin into the Indian Ocean. A concrete dam was constructed across a gorge on the river in Travancore and the impounded water is directed through a tunnel 5,704 feet long eastward down the Cumbum valley where it flows along the beds of the Vairavan and Suruli rivers. The Suruli discharges its water into the Vaigai and down the Vaigai the Periyar water is carried as far as the Peranai dam, where it is taken out of the river into the main canal. The canal runs for upwards of 35 miles through three taluks and from it the water is let to innumerable tanks and field channels through branch channels; several smaller distributaries and many sluices in the main canal itself. The area irrigated by the Periyar water during 1930–31 was 131,609 acres (first crop) and 45,126 acres (second crop). The net revenue derived was Rs. 5,65,616. The capital expenditure up to the end of 1929–30 is Rs. 1,04,32,769.

The Irrigation Commission in 1902–03 observed that in order to safeguard the people against famine, steps should be taken to bring more land under cultivation and to increase the area protected from drought. With that view Madras Engineers have investigated the irrigation facilities of the Presidency and proposed a number of projects, big and small. The three big projects relate to the Tungabhadra, the Kistna and the Cauvery. Of these the last one, the Cauvery-Mettur project has taken a definite shape.

The Cauvery-Mettur project.—The project was under investigation for a long time and an estimate was prepared in 1910 but had to be kept in abeyance for thirteen years pending an agreement between the Mysore Darbar and the Madras Government. The scheme was sanctioned by the Secretary of State in 1925 for a sum of Rs. 612 lakhs. The estimate was for the construction of a dam at Mettur of an average height of 113 feet and 1.20 miles in length which will impound 93,500 million cubic feet of water forming a lake about 100 miles in circumference for the irrigation of 301,000 acres of first crop and 90,000 acres of second crop by means of 128 miles of new canals and channels. The floods of 1924 which surpassed any previous floods necessitated a revision of the estimate, and an increase by Rs. 125 lakhs. This was sanctioned by the Secretary of State in 1929. It is expected that the project will be completed in 1934–35, irrigation under it commencing in 1932. The net revenue is estimated at Rs. 57.13 lakhs. The total expenditure up to the end of 1930–31 amounts to Rs. 442.50 lakhs.

The Kistna Reservoir project was investigated and an estimate for Rs. 8.34 crores was submitted to the Government of India in 1912 for sanction; but the estimate was returned for revision, which was deferred as this project could not be carried out simultaneously with the Cauvery Reservoir project.

On the recommendation of the Ceded Districts Committee investigation of the modified Tungabhadra-Kistna project has been ordered and a preliminary report submitted to Government in March 1930 provides for

- (1) Tungabhadra Reservoir project—
 - (a) with dam or head works at Timalapuram to irrigate 544,890 acres of first crop and 240,945 acres of second crop estimated at Rs. 22.34 crores, or
 - (b) Tungabhadra Reservoir project at Malapuram site to irrigate 405,218 acres of first crop and 171,109 acres of second crop estimated at Rs. 11.50 crores.
- (2) Kistna Reservoir project storage dam at Pulichintala to irrigate 610,000 acres of single crop estimated at Rs. 9.97 crores.

The construction of this project requires the concurrence of the Mysore, Hyderabad and Bombay Governments with which negotiations are proceeding.

Irrigation works are divided into—

- (a) Works for which capital and revenue accounts are kept.
- (b) Works for which neither capital nor revenue accounts are kept.

Class (a) is again divided into

- (1) Productive (yielding a return of 6 per cent), and
- (2) unproductive which consists of (a) new projects, (b) improvements to existing systems involving additions to capital accounts.

Statement I shows in detail for a series of years the number of productive works, the area irrigated and the net revenue and total capital outlay.

Statement II gives the same particulars in respect of unproductive works for nine years.

(b) *Minor irrigation works—The Tank Restoration scheme.*—An important feature characteristic of the Presidency is the enormous number of small works (for which neither capital nor revenue accounts are kept) which though comparatively unimportant individually are nevertheless the means by which a large area is irrigated. These works which consist of tanks and channels were constructed long ago in order to store and utilize local rains and the waters of small rivers at times of sudden storms and to prevent the rapid flow of water to the sea. The Famine Commission in 1878 emphasized the necessity for a systematic treatment of these irrigation works. The systematic investigation of these tanks and channels with the object of bringing each work into an efficient state gave rise in 1882 to the Tank Restoration scheme, for which a special staff was appointed. The nature of the work entrusted to the special staff was—

- (1) Preparation of maps to show the river basins of the Presidency.

- (2) Correct grouping of the basins.
- (3) Ascertaining the position of works.
- (4) Noting the existing circumstances and requirements and preparing estimates.
- (5) Collection of financial and hydraulic particulars.
- (6) Preparation of memoirs giving information as to standard levels, flood discharges, storage and irrigation details.

Till 1891-92 grants were made from the Imperial Funds but after that grants were made from the Provincial Funds. In 1896 a permanent minor irrigation establishment under the Collector of the district was sanctioned. All works irrigating over 200 acres are in charge of the Public Works Department while those irrigating 200 acres and less are in charge of the Revenue Department. The following Table II exhibits the number of the minor irrigation works and the area irrigated by them for a series of years. Table IV shows the progress in the Tank Restoration scheme.

Irrigation Advisory Boards have been constituted for the Godavari, Kistna and Cauvery deltas—3 for Godavari, 2 for Kistna and 1 for Cauvery.

In 1930 the Government sanctioned the establishment of a Board called the " Irrigation Development Board " consisting of the Commissioner of Land Revenue, the Commissioner of Land Revenue and Settlement, the Chief Engineer for Irrigation and the Director of Agriculture. In 1929 the Government ordered that every new scheme for a large irrigation project should be reported on by the Revenue and Agricultural Departments from the aspects which particularly concern them, in consultation with the Public Works Department so that the Government would have the three reports before them in considering the scheme. To allow discussions of any points of difference that may arise the Board was constituted so that the Government would have a joint report on the whole scheme.

TABLE I.

Productive Works.

Year.	Number of works,	Capital outlay.			Area charged as irrigated and area irrigated free of charge.						Net revenue,		
		During the year,		To the end of the year,	First crop.			Second crop.			Total.		
		Rs.	AGS.	Old irrigation	New irrigation.	AGS.	Total.	Old irrigation.	New irrigation.	AGS.	Total.	AGS.	Rs.
1880-81	8	8,69,798	5,24,68,442	..	..	2,171,934	1,783,345 (both first and second crops.)	..	..	174,798	78,94,094	4,46	
1890-91	8	16,79,883	6,91,76,156	..	..	2,607,949	..	..	..	362,768	37,24,389	6,95	
1900-01	8	8,88,177	..	..	..	2,935,988	..	..	..	362,640	82,96,490	9,05	
1910-11	15	7,90,081	8,31,04,633	..	..	3,008,450	..	..	..	451,424	86,74,067	2,02	
1911-12	15	4,20,808	8,35,25,441	..	..	2,990,310	..	..	..	512,700	82,78,188	2,32	
1912-13	15	3,25,490	69,17,738	..	..	3,048,017	..	..	..	445,168	6,65		
1913-14	16	3,86,631	8,42,37,446	..	..	2,982,452	..	..	..	410,088	77,71,088	5,86	
1914-15	16	7,75,943	8,50,13,389	..	..	3,007,893	..	..	..	491,946	86,08,401	6,65	
1915-16	16	4,34,886	8,59,48,205	..	..	2,985,800	..	..	..	480,666	83,36,100	6,54	
1916-17	16	6,34,566	8,65,82,881	..	..	3,002,793	..	..	..	523,881	86,79,663	6,70	
1917-18	16	6,54,995	8,72,37,886	..	..	2,944,606	..	..	..	633,378	86,20,588	6,53	
1918-19	16	7,82,998	8,80,20,884	..	..	3,026,790	..	..	..	690,690	95,40,426	7,51	
1919-20	16	7,11,721	13,82,951	..	..	1,279,859	1,797,801	..	..	389,934	457,030	38,25,098	6,67
1920-21	16	8,36,904	8,95,69,479	..	..	1,269,880	1,889,662	67,096	..	381,681	446,981	32,59,219	
1921-22	13	7,59,920	6,48,24,104	..	..	1,426,570	1,783,341	61,410	..	446,981	32,59,219	9,68	
1922-23	24	6,73,938	6,98,48,451	..	..	1,426,570	3,219,911	89,340	388,334	477,674	89,20,716	9,62	
1923-24	24	10,73,710	7,09,22,231	..	..	1,426,570	3,192,922	89,340	384,217	473,557	97,18,566	10,52	
1924-25	24	10,12,225	7,19,24,446	..	..	1,426,570	1,762,188	3,191,928	89,600	378,724	448,324	84,18,361	8,45
1925-26	29	28,62,982	7,64,99,646	..	..	1,432,100	1,803,625	3,230,625	92,360	439,605	531,965	91,97,263	8,98
1926-27	29	77,60,32	8,52,59,678	..	..	1,432,100	1,835,045	3,267,445	92,360	410,096	602,466	388,61,766	7,38
1927-28	29	1,08,70,701	9,44,64,603	..	..	1,432,100	1,860,517	3,282,517	92,360	389,103	490,463	84,10,306	6,50
1928-29	* 28	1,19,57,705	10,62,12,606	..	..	1,432,100	1,878,910	3,311,010	92,360	392,602	484,962	84,28,775	5,64
1929-30	28	1,02,88,737	11,65,06,988	..	..	1,439,960	1,915,383	3,375,353	100,610	420,129	521,339	89,67,046	7,70
1930-31	28	1,00,46,954	12,05,53,942	..	..	1,469,960	1,911,006	3,370,966	100,610	431,982	532,942	78,10,498	6,17

* One channel (Basavannah channel) with a capital outlay of 2,09,924 was transferred to the category of unproductive works.

TABLE II.
Unproductive Works,
Area irrigated as irrigated and area irrigated free of charge.

Year.	Number of works.	Capital outlay during the year.	First crop.		Second crop.		Percentage of return on the capital outlay.	Net revenue.		
			Old irrigation.	New irrigation.	Total.	Old irrigation.	New irrigation.			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1921-22	..	39	40,186	261,136	223,234	487,370	38,291	61,759	90,080	7,88,102
1922-23	..	28	28	28	97,446	170,219	267,695	10,361	14,433	1,11
1923-24	..	29	7,626	97,446	169,303	266,749	10,361	12,224	22,385	4,46,474
1924-25	..	30	62,425	97,446	16,972	262,418	10,361	12,950	28,311	4,65,610
1925-26	..	29	83,318	94,506	148,247	242,753	7,601	12,308	19,964	4,08,852
1926-27	..	22	8,679	94,506	165,012	249,648	7,601	8,769	16,769	4,12,655
1927-28	..	29	1,603	94,506	150,729	245,236	7,601	10,622	18,228	3,70,704
1928-29	..	27	1,49,864	94,606	149,029	243,532	7,601	9,241	16,842	3,05,242
1929-30	..	27	1,69,819	94,506	163,556	268,262	7,601	18,849	18,450	3,27,572
1930-31	..	27	94,506	166,026	260,532	260,532	7,601	15,783	23,384	3,71,466
										3,80,524

TABLE III.
Statement showing the number, kinds of and the area irrigated and gross revenue under Minor Irrigation Works.

Year.	In charge of Revenue Department.				In charge of Public Works.				Total of all works, irrigated.	Area irrigated.	Gross revenue.
	Channels.	Tanks.	Other works.	Total.	Channels.	Tanks.	Other works.	Total.			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1890-91	525	2,779	..	3,304	3,782	21,432	..	2,617,213
1900-01	71,70,482
1910-11	2,958,381
1920-21	633	2,741	93	3,467	5,661	24,988	3,360	3,294,386
1921-22	632	2,702	100	3,454	5,668	24,872	3,292	3,287,390
1922-23	502	2,800	30	3,322	5,914	25,011	38,922	37,266
1923-24	502	2,802	30	3,334	6,627	25,108	1,408	3,346,398
1924-25	88	2,845	5	3,338	6,697	25,109	1,422	36,477
1925-26	88	2,861	5	3,334	6,641	25,081	1,416	3,164,197
1926-27	497	2,909	5	3,411	6,689	26,138	17,178	3,383,672
1927-28	494	2,861	5	3,350	6,583	26,161	1,329	36,469
1928-29	540	2,848	5	3,393	6,621	25,150	1,640	3,205,447
1929-30	636	2,862	..	3,388	6,643	26,120	1,663	3,207,763
1930-31	637	2,854	..	3,391	6,629	26,142	1,646	3,395,569

Year.	Area investigated		Works		Completed		In progress.		Percentage of total		Estimate sanctioned during the year.		Estimate sanctioned during the scheme.		Expenditure during the year.		Expenditure up to the end of the year.	
	Sq. M.	sq. m.	Sq. M.	Sq. M.	Sq. M.	Sq. M.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Rs.	Rs.	
1890-91	..	..	66,840	2,866	69,706	56,584	10,843	34,044	67.2	4,23,651	1,14,42,625	3,93,163	96,47,813	..	..	..	..
1900-01	45,443	23,841	69,546	3,346	72,892	63,654	6,446	30,858	70.2	4,80,408	1,19,23,033	4,55,112	1,0,01,925	..	..	..	..
1910-11	70,462	..	20,751	22,333	45,084	51,06	45,459	2,295	76,187	66,152	4,396	28,563	72,47	6,24,605	1,06,10,088	..	..
1911-12	..	..	45,443	40,333	67,190	10,242	..	..	12,267	..	..	..	..	4,71,252	6,30,322	18,35,193	53,01,533
1912-13	103,750	79,756	103,750	80,716	72,892	76,258	65,801	1,071	76,187	76,258	27,492	73,6	1,32,02,524	6,65,185	1,10,52,244	..	..
1913-14	..	..	103,750	80,716	72,892	76,187	1,071	76,187	77,056	67,409	3,794	26,695	74	2,66,217	1,34,67,741	5,09,381	1,14,68,652
1914-15	103,750	82,007	103,750	82,159	72,892	76,258	67,409	..	77,056	68,511	4,907	26,192	74	2,98,556	1,37,66,286	3,31,615	1,18,0,167	
1915-16	103,750	82,159	103,750	83,157	77,056	503	77,558	..	77,056	69,536	4,369	26,735	75	3,08,624	1,40,74,920	3,40,086	1,21,40,263	
1916-17	103,750	83,157	103,750	83,157	77,056	643	78,016	..	77,056	69,536	4,369	26,735	75	3,08,624	1,40,74,920	3,40,086	1,21,40,263	
1917-18	103,750	83,157	103,750	83,157	77,056	643	78,016	..	77,056	69,536	4,369	26,735	75	3,08,624	1,40,74,920	3,40,086	1,21,40,263	
1918-19	103,750	83,612	103,750	83,612	78,980	78,980	72,454	5,703	24,770	78,980	72,454	5,703	24,770	78,980	1,44,67,048	4,31,742	1,26,71,956	
1919-20	103,750	84,819	78,980	80,042	73,758	64,443	64,443	2,295	73,758	75,126	4,148	22,239	78,980	4,69,624	1,49,36,632	4,16,246	1,29,88,201	
1920-21	103,750	85,272	80,042	81,469	81,511	81,511	81,511	..	81,511	82,603	4,303	19,897	80,68	4,51,586	1,53,88,218	3,56,982	1,38,47,273	
1921-22	102,500	87,367	81,511	81,511	81,511	1,092	82,603	..	82,603	83,009	76,131	4,072	18,891	81,57	4,68,902	1,68,47,120	3,92,697	1,37,39,870
1922-23	102,500	89,328	82,603	82,603	82,603	1,006	83,009	..	83,009	83,662	76,736	3,21,836	81,57	3,21,836	1,61,68,956	3,59,378	1,39,60,222	
1923-24	102,500	89,328	83,609	726	84,356	84,356	84,356	..	84,356	85,662	8,165	82,27	81,57	3,11,189	1,64,80,146	3,14,246	1,42,74,478	
1924-25	102,500	90,276	84,356	605	84,940	78,502	78,502	5,254	78,502	80,502	8,165	82,27	82,27	2,88,981	1,67,69,126	3,71,008	1,46,45,186	
1925-26	102,500	90,880	84,940	265	85,195	80,760	80,760	17,315	80,760	81,321	8,348	83,12	83,12	3,47,268	1,71,16,384	3,16,936	1,49,62,422	
1926-27	102,500	91,136	85,195	677	85,872	81,321	81,321	1,413	81,321	81,815	8,228	83,77	83,77	3,73,38,783	3,69,132	1,62,71,554	..	
1927-28	102,500	91,812	86,872	489	86,361	81,815	81,815	2,228	81,815	82,280	1,139	84,25	84,25	2,93,226	1,76,32,008	2,69,543	1,65,31,097	
1928-29	102,500	92,301	86,361	501	86,862	82,280	82,280	4,582	82,280	84,74	15,638	84,74	84,74	3,08,483	1,79,62,491	1,83,986	1,57,14,483	
1929-30	102,500	92,802	86,862	768	87,930	83,137	83,137	4,498	84,74	85,49	14,870	85,49	85,49	5,86,359	1,86,48,850	2,12,960	1,59,27,483	
1930-31	102,500	93,670	87,630	829	88,469	88,469	88,469	4,540	88,469	88,469	14,041	88,469	88,469	6,15,736	1,91,64,586	2,50,372	1,61,77,805	

13. EDUCATION.

This is now a transferred subject in charge of the Minister for Education.

The Director of Public Instruction is the administrative head of the department under whom there are District Educational Officers for boys, and Inspectresses for girls who are the chief executive officers of the department. There are Deputy Inspectors and Junior Deputy Inspectors to assist the District Educational Officers and Sub-Assistant Inspectresses to assist the Inspectresses.

The Standing Committee on Education and Registration was first constituted in November 1921 with eight members of whom seven were non-official members of the Legislative Council; the President being the Hon'ble the Minister in charge of Education and Registration. It was reconstituted in December 1923 with eleven members of whom ten were non-official members of the Legislative Council. Since May 1927 a separate committee has been appointed for education. The Committee now functioning consists of nine members of whom eight are non-official members of the Legislative Council, the ninth, the Deputy Secretary to Government in the Law and Education Department, being an ex officio member.

University education.—The University of Madras was founded under the Act of Incorporation, XXVII of 1857. The function of the University was limited to affiliation and examination and the actual teaching was carried on in the affiliated colleges. This Act was in operation till 1904 when as a result of the commission appointed by the Government of India in 1902, the Indian Universities Act, VIII of 1904, was passed in order to strengthen the educated element in the Senate, to increase the proportion of elected Fellows, to extend the powers of the University in respect of the control, inspection and affiliation of colleges, and to enable the University to undertake the work of teaching and research. But in spite of this Act, the University continued to be almost entirely an examining body. The resolution of the Government of India on general educational policy issued in 1913 and the special imperial grants that were made available for expanding the activities of the Universities rendered it possible for the Madras University to make a beginning in developing its teaching functions. Three University chairs—one for Indian History and Archæology, a second for comparative philology, and a third for Indian Economics—were founded.

The Calcutta University Commission emphasized the need for a change in the educational aims and ideals and the desirability of organizing teaching and residential universities. With the object therefore of establishing a teaching and residential university in Madras and with a view to organize and develop the teaching resources existing in the City, to promote co-operation and

reciprocity among the colleges in Madras and to develop inter-collegiate activities and amenities, a Bill remodelling the University of Madras was introduced and passed by the Legislative Council into law. The Act (VII of 1923) came into force on the 19th May 1923. The Chancellor, the Pro-Chancellor, the Vice-Chancellor, the Senate, the Syndicate, the Academic Council and the Council of Affiliated Colleges constituted the body corporate of the University. The Chancellor is the Governor of Madras; the Pro-Chancellor is the Minister of Education; the Vice-Chancellor is a whole-time officer to whom a salary may be paid, who holds office for three years and is appointed by the Chancellor from among the five persons recommended by the Senate. The authorities of the University under the new Act were—

- (1) The Senate.
- (2) The Syndicate.
- (3) The Academic Council.
- (4) The Faculties.
- (5) The Boards of Studies.
- (6) The Council of Affiliated Colleges.
- (7) Such other authorities as may be declared by the statutes to be the Authorities of the University.

An important development under the new Act has been the assumption of the function of teaching especially in the higher ranges of study, and the encouraging of research. Departments of Economics, Mathematics, Philosophy and Oriental Research have been instituted by the University with Government aid.

A special grant aggregating to Rs. 89,000 was given to the University for the purchase of books and periodicals to make up deficiencies in the library. The local students' advisory committee was replaced by a university bureau.

The Government have subsidized the University to the extent of Rs. 1,80,000 for the construction of research laboratories in Zoology and Bio-Chemistry and the University has agreed to provide a laboratory in Botany out of its own funds. Act VII of 1923 was further amended by Act XII of 1929. The principal changes introduced by the amending Act are—

(1) *Composition of the Senate.*—Several officers of the Government such as the Surgeon-General with the Government of Madras, the Chief Engineer, Public Works Department, the Advocate-General, the Directors of Industries and Agriculture have been removed in the new constitution.

(2) *The Council of Affiliated Colleges has been abolished.*—The representation of the Academic Council on the Senate has been increased from ten to twenty with a provision that ten of them shall be teachers in affiliated colleges.

(3) The powers of the University and the Senate have been enlarged.

(4) The Academic Council has been authorized to constitute a Standing Committee.

(5) The number of persons to be recommended by the Senate for appointment as Vice-Chancellor is three instead of five provided for in the Act of 1923.

The Andhra University.—A separate University for the Andhra districts was formed by an Act which came into force on 26th April 1926. The headquarters of the University were first at Bezwada. This gave rise to a volume of criticism and the Act was amended by Act IV of 1929 when Vizagapatam was made the University headquarters. The colleges in the Ceded districts and Chittoor were also excluded from the jurisdiction of the Andhra University.

The Annamalai University.—Raja Sir Annamalai Chettiyar offered to transfer the collegiate institutes founded by him at Chidambararam to a university and to give a further sum of Rs. 20,00,000 towards the endowment fund of that University and consequently the Annamalai University was constituted under Act I of 1929 which came into force from January 1929. It is an entirely residential and teaching university.

University income and expenditure—Statement.

Decades.	Income.			Expenditure.	Percentage of Govern- ment grants on income.
	Government grants. RS.	Other incomes. RS.	Total. RS.		
1880-81	5,246	54,900	60,146	60,677	8·5
1890-91	Nil.	1,89,900	1,89,900	1,54,600	..
1900-01	Nil.	2,54,550	2,54,550	2,01,320	
1910-11	15,000*	1,70,428	2,04,428	2,09,340	16·6
	+ 19,000				
1920-21	20,000	5,77,467	5,97,467	6,12,173	3·4
1930-31	4,36,000	12,80,450	17,16,450	15,14,418	35·4

* Accumulated unspent amount of previous years' Government grants.

Secondary education.—The final school examination is the Secondary School-Leaving Certificate Examination introduced in 1911 in lieu of the Matriculation Examination. This is a Government examination conducted by a Board; but with certain restrictions, it is accepted by the University as equivalent to a University entrance examination.

The secondary schools are recognized by the Director of Public Instruction on the recommendation of the District Educational Officers and Inspectresses. The Government grant subsidies to recognized publicly managed schools, and the Director of Public Instruction gives grants-in-aid to recognized privately managed schools. The majority of the schools are managed by private agencies, but the local boards and municipal councils also maintain many schools and a few model schools are managed directly by the Government.

In January 1923 the Government issued instructions for the establishment of a District Secondary Education Board for every district in the Presidency, excluding the Nilgiris and the Agency tracts, consisting of elected and nominated members, from 8 to 12

in number. Its functions are purely advisory. The Board was reconstituted in 1928, the main changes being (1) that the president of the Board is no longer nominated by Government; (2) that separate electorates are not retained for Christian mission and non-mission secondary schools; (3) that the headmasters of the secondary schools are formed into a separate electorate; (4) that the staff of schools under local bodies is also allowed representatives on the Boards in common with the staffs of schools under private management; (5) that members to be nominated by the Government are confined to women, Muhammadans, and representatives of the depressed classes.

Though the Boards continue to be advisory, minor alterations have been made in the list of matters on which their advice should be sought. Under the Secondary School-Leaving Certificate scheme it was left to the option of a pupil to answer questions in non-language subjects either in English or in the vernacular. No student exercised this option. In 1925 the Director of Public Instruction issued a circular informing managers of schools that they are at liberty to choose either English or a vernacular as the medium of instruction in Forms IV, V and VI of a secondary school. Two members of the Secondary Education Conference convened in 1925 under the chairmanship of the Director of Public Instruction urged the necessity for introducing compulsion in the matter; but this has not yet been decided.

The following statement shows the results of the Upper Secondary, Matriculation and Secondary School-Leaving Certificate examinations:—

Statement showing the Results of the Upper Secondary, Matriculation and Secondary School-Leaving Certificate Examinations
in the six decades.

Decades.	Upper secondary examination.		Matriculation examination.		Secondary School Leaving Certificate Examination.	
	Number applied.	Number passed.	Number applied.	Number passed.	Number applied.	Number passed.
1880-81	Instituted under G.O. No. 351, Education of 1889.	3,619	1,371	.. ..	.. ..
1890-91	139	3	7,002	1,648	.. ..
1900-01	132	17	7,313	1,423	Instituted from 1911 (G.O. No. 427, Education of 1909.)
1910-11	Abolished from 1909.	7,381	1,373	7,377	7,253 *
1920-21	38	9	7,592	4,453 †
1930-31	21,481	6,602 †

* Number to whom completed certificates were issued.

† Number declared eligible for University courses of study.

Elementary Education.—Elementary education was till 1920 left to local boards, municipal councils, missions and non-mission agencies, the Government making liberal grants from general revenues to supplement the limited resources of local bodies and the generous exertions of private agencies. Though considerable progress was made by these private agencies in elementary education it was considered imperatively necessary to place the organization of elementary education on a statutory basis and to set the financial position on a stable footing, secure from the conflicting claims of other administrative needs. A large and representative conference was therefore held in 1918 in connexion with this matter, and as a result of the discussions of this conference the Madras Elementary Education Act VIII of 1920 was passed. Until this Act was passed, the principal responsibility for ascertaining the educational needs of an area in regard to elementary education and for stimulating such expansion as might be necessary to meet these needs was left mainly to the Department of Education. The granting of recognition to elementary schools and the passing of orders on applications for grants-in-aid to private elementary schools were in the hands of the Department of Public Instruction. The Elementary Education Act provides for the creation in each district of a District Educational Council, which is an independent body and not a statutory committee of any of the existing local bodies. This body contains a few ex officio members and a few members nominated by the Governor in Council, but the majority of its members are elected by the local authorities in the district. Its principal functions are—

- (a) To prepare schemes for the extension of elementary education with a view to its ultimately becoming universal.
- (b) To elicit and direct the co-operation of all agencies whether public or private engaged in elementary education by the opening of additional schools and the expansion of existing schools.
- (c) To regulate the recognition of all elementary schools and to assess and disburse all grants-in-aid from provincial funds to private elementary schools.
- (d) To advise the Department of Education on all matters connected with elementary education including the provision of trained elementary school teachers.

Provision is made for the levy with the previous sanction of the Local Government of an education tax subject to the prescribed maximum, the proceeds of the tax being placed entirely at the disposal of each local authority for use in the area in which it is raised and subject to the jurisdiction of the local authority which raises the tax. The Act provides for at least an equivalent contribution being made to each local body from provincial funds in addition to the provincial subsidies made on behalf of elementary education. Provision is also made for the introduction of compulsion in suitable areas with the previous sanction of the Local Government.

On the question of religious instruction in recognized elementary schools the Act enables District Educational Councils to enter into agreements with the managers of private institutions where religious instruction of a denominational type is enforced, by which special arrangements will be made for the exemption of pupils whose guardians object to their attendance at such instruction and to arrange with the local authority for the opening of new public elementary schools at which such pupils can attend, where compulsion considers this course necessary.

About the same time the District Municipalities Act and the Local Boards Act were revised, and elementary education has been completely removed from the purview of district boards and entrusted to taluk boards and municipalities.

In 1923 the Government convened two conferences to discuss the expansion and improvement of elementary education. The important recommendations of these conferences were as follows:—

(a) To promote the gradual expansion of elementary education in urban areas, each village with a population of 500 inhabitants and over should be provided with a school.

(b) Indigenous schools should be developed and made eligible for aid and the new schools to be started should ordinarily be aided schools, but in villages where it is not possible to start aided schools local bodies should open schools.

In 1924 a special survey was undertaken in all taluks of the Presidency for the preparation of a statistical record of population centres, schoolless centres, the number of children of school-going age and the number actually in schools. As a result of this, the Government have been subsidizing and aiding the opening of a large number of schools in places hitherto unprovided with schools. The experience gained in the working of the Act shows that the Act is defective in certain respects. A special officer was appointed in 1927 to examine and report on the subject; and he submitted a report and framed a Bill. This Bill has been revised with reference to the recommendations of two conferences of select members of the Legislative Council and the amended Bill is now under consideration.

In 1926–27 the agency of village panchayats was employed for the opening of new schools; this arrangement is comparatively economical, a panchayat school being less costly than a board school and it also serves to associate the local organization with the education of the children.

To accelerate the progress of elementary education in rural areas Government in 1924–25 sanctioned as a preliminary measure subsidies to fifty taluk boards, which levied the education cess, towards the opening of 825 schools for boys in villages with a population of 1,000 and over unprovided with schools. A total subsidy of Rs. 1,61,504 was distributed among the taluk boards in 1924–25.

In pursuance of the policy formulated by the Government of providing schoolless centres with a population of 500 and above with an elementary school, sanction was accorded for the opening

of additional schools for boys in the subsequent years as shown below:—

Year.	Number of schools.	Annual recurring cost. RS.
1925—26	1,469	4,21,980
1926—27	556	1,62,744
1927—28	409	1,17,372
1928—29	687	1,97,316
1929—30	107	30,276

Similarly sanction was also accorded for the opening of new schools for girls as shown below:—

Year.	Number of schools.	Annual recurring cost.
1927—28	500	1,74,288
1928—29	500	1,71,912
1929—30	477	1,72,476
1930—31	245	86,460

Funds were also placed at the disposal of the District Educational Councils every year to assist new aided elementary schools in schoolless centres.

Subsidies are also being sanctioned to local bodies for the employment of additional teachers in the schools opened since 1924—25 with the help of Provincial funds.

Fourteen taluk boards and fifty-one municipalities have not yet levied educational cess.

Twenty-five municipalities and the Corporation of Madras and seven taluk boards have introduced compulsion in elementary education.

Special education—(1) *Engineering institutes*.—For a long time the only institution in which instruction in Engineering was imparted was the Engineering College which was developed from a Survey School established in 1794 at Chepauk and trained Mechanical and Civil Engineering students and students of Upper and Lower subordinate grades. It was affiliated to the Madras University in 1859. It was transferred to Guindy and made a residential College in 1920. Admission to the College was formerly made on the results of an entrance examination. This was replaced by a Selection Committee nominated by the Government with the principal as the President. To provide additional facilities for subordinate engineering education, the Government sanctioned the opening as a temporary measure, of an Engineering School at Vizagapatam in 1917, and another at Trichinopoly in 1920. The Trichinopoly School was closed in 1928 but the one at Vizagapatam still continues.

A separate course for Electrical Engineering was instituted in the College at Guindy with effect from the school year 1930—31.

(2) *Commercial school*.—For a very long time the only commercial school maintained by the Government was at Calicut. The Institute prepared candidates for the Government Technical Examinations in various commercial subjects.

An institute of commerce preparing students for the G.D.A. Examination, Bombay, was opened in Madras in 1918. A school on the model of the one at Calicut was opened at Vizagapatam in 1925 to meet the needs of the Northern districts.

Besides these Government institutes assistance is given to a few institutes managed by private agencies. There are also some unaided commercial schools.

(3) *Agricultural schools.*—In 1922 two agricultural middle schools were opened one at Taliparamba, Malabar district, and the other at Anakapalle in the Vizagapatam district, to provide for the sons of cultivators a vernacular course of instruction in the principles of agriculture. The District Board of Madura have decided to open an agricultural school for the benefit of the Kallars.

(4) *Other schools.*—There are schools for the education of the blind, deaf-mutes and other defectives at Palamcottah, Renta-chintla and at Madras, for lepers at Bapatla, for adults at different centres, for the education of the aboriginal, hill and criminal tribes, Adi-Dravidas, Adi-Andhras, and other kindred classes, for vocational and manual training, and for arts and industries.

The statements appended show the progress in education from 1880 to 1930 and also the amount spent on education from the Provincial Revenue, Local Board and Municipal Funds.

Statement showing separately the number of institutions for males and females.

	Collegiate education.	Secondary education.	Primary education.	Training institu- tions.
--	--------------------------	-------------------------	--------------------	--------------------------------

Year.

	Males.	Female	Males.	Female	Males.	Female
1880-81	28	480	40	11,793	500	26
1890-91	40	556	259	17,157	728	57
1900-01	44	523	209	19,483	822	56
1910-11	35	558	248	23,426	900	63
1920-21	56	499	86	32,994	2,497	131
1930-31	70	553	107	50,132	5,658	80

Statement showing expenditure from Provincial Revenue, Local Boards and Municipal Funds in the six decades.

Year.	Provincial revenue.				Local boards.		Municipal boards.	
	RS.		RS.		RS.		RS.	
1880-81	9,45,176	4,44,847	75,020	
1890-91	16,93,390	7,08,689	1,83,582	
1900-01	18,79,734	7,74,688	2,63,999	
1910-11	43,15,679	11,23,542	3,21,454	
1920-21	1,41,71,479	29,59,535	7,22,076	
1930-31	3,11,83,313	63,23,793	24,33,483	

Number of boys and girls in public and private institutions in the six decades.

Statement showing the number of institutions, University, Secondary and Elementary and scholars,

8-A

14. PUBLIC HEALTH.

(i) MEDICAL.

I. Hospitals.

The Medical Department deals with medical relief, medical research and medical education. In regard to medical relief, the department is responsible for the maintenance of important hospitals in Madras City and at the headquarters of the districts and taluks and in special tracts. The responsibility for medical relief in rural areas devolves upon local bodies though the Government assist these bodies in several ways, by placing the services of Government medical officers at their disposal, by grants for medical buildings and by subsidies to rural medical practitioners. Statement A shows the number of medical institutions maintained by the State, local bodies, private agencies aided and unaided, and Railways. There has been an increase in the number of State public institutions due to (1) the provincialization of district and taluk headquarters hospitals, (2) the opening of new medical institutions in the Agency tracts and other special areas. There has been a decrease in the number of State special institutions due mainly to the policy laid down before the Reforms of amalgamating separate police hospitals with the general hospitals wherever it could be arranged without difficulty. The increase in the number of local fund and municipal institutions is due to a large number of rural dispensaries having been opened. The total number of medical institutions in 1880 was 218, while the number of such institutions in 1931 is 1,245.

Statement B shows the number of beds provided for in-patients, the number of in- and out-patients and the daily average.

Statement C shows the receipts and expenditure. Provincial contributions to medical relief come to Rs. 58,96,252 in 1931-32 against Rs. 2,76,266 in 1880.

Important changes in the medical administration—(1) *Rural medical practitioners*.—In order to increase the facilities for medical relief in rural areas, the Government sanctioned in 1924, the grant of subsidies to private medical practitioners on condition that they agreed to settle in selected villages and give free treatment to the poor. The object underlying the scheme was not only to render it easier for the rural population to secure proper medical treatment, but also to build up an independent medical profession in rural areas. An annual subsidy of Rs. 400 from the Government to L.M.Ps. and Rs. 600 to medical graduates and a free supply of medicines costing Rs. 360 from the local board were sanctioned for each practitioner. In 1929, the subsidy to L.M.Ps. was raised to Rs. 500 and by the end of 1929, 393 dispensaries had been opened. The subsidy has been admissible in the case of L.I.Ms. also. The number of dispensaries working at the end of 1931 was 506.

(2) *Provincialization of district and taluk headquarter hospitals.*—Between 1917 and 1920, the Government took over the management of almost all the district headquarters hospitals in order to improve them and make them up to date so that they might serve as models for the rest of the district.

With a view to make the headquarters of each taluk the administrative pivot of medical relief for the area comprised in that taluk with adequate provision for the maintenance of at least one efficiently managed institution in each taluk, the Government in 1923, undertook to pay the whole of the salaries of the Government medical officers employed in local fund and municipal medical institutions at taluk headquarters. The scheme was developed subsequently by the assumption by the Government during 1928 of the management of 106 local fund and municipal institutions situated mostly at taluk headquarters. Twelve more medical institutions were provincialized in 1929 and two more in 1930.

(3) *Dispensary Doctor system.*—A survey of the adequacy of medical relief was made during 1920–21 and it was noticed that a large number of outlying dispensaries did not provide sufficient work for a whole-time medical officer and did not justify the existence of a full-time medical institute. Such dispensaries were ordered to be closed for two or three days in the week and the medical officers were requested to tour, visiting specified villages on specified week days to afford medical relief to the sick poor in such villages. There are also three itinerating dispensaries working in the Presidency, two in the Vizagapatam Agency, and one in North Arcot.

(4) *Training of 'dhais'.*—To improve the methods of indigenous midwives by giving them instructions in modern methods of midwifery a scheme was adopted by Government in 1926. Since the inception of the scheme 58 'dhais' have undergone training and been certified to have passed the examination. The subsidy allowed to qualified midwives employed in rural dispensaries has been increased from Rs. 100 to Rs. 300 per annum in the case of first-class midwives and to Rs. 200 per annum in the case of second-class midwives.

(5) *Honorary medical officers.*—The appointment of honorary medical officers had been tried on a small scale in 1911 to 1914 and had been dropped, but the question was revived in 1923 by the Medical and Public Health Retrenchment Committee and re-introduced in the Presidency hospitals. The scheme was extended in 1929 to all district headquarters hospitals and Government hospitals.

(6) *Registration of nurses and midwives.*—In order to safeguard the public against the risk of treatment by nurses and midwives possessing no qualifications and also in the interests of qualified nurses and midwives, the Madras Nurses and Midwives Act was passed (Act III of 1926). The Act provides for the registration of trained 'dhais' also. It has been brought into force since February 1928.

Medical aid in the Madras City.—Madras City is very well served with medical institutions. There are at present 33 medical institutions at work including dispensaries maintained by the Corporation. The Government General Hospital, the Government Rayapuram Hospital and the Royapetta Hospital are the three big hospitals for the treatment of general diseases; there are also special Government institutions at work, viz., the Hospital for Women and Children, Ophthalmic Hospital, the Tuberculosis Hospital at Royapettah and the Tuberculosis Institute for out-patients at the Spur Tank and the X-ray Institute which is located within the General Hospital. A scheme for the establishment of a tuberculosis colony has been sanctioned by Government.

A scheme for remodelling the General Hospital on its present site was sanctioned and the estimated cost is Rs. 40,00,000. A combined Pathological Institute for the Medical College and Administrative block for the General Hospital estimated to cost over Rs. 12,00,000 has also been sanctioned.

Special diseases.—The following diseases received particular attention during the recent years:—

(1) *Eye diseases.*—A special diploma in Ophthalmology has been instituted.

(2) *Leprosy.*—A large settlement for the segregation of lepers has been opened at Tirumani (Chingleput district). The annual contribution of Rs. 7,000 to this Presidency by the British Empire Leprosy Relief Association, Indian Council, Simla, was utilized in the shape of grants for drugs, equipment and appliances to Government district headquarters hospitals, to which teaching institutions are attached and to private Leper Asylums. This contribution has since 1929 been reduced to Rs. 5,800.

In the interest of leprosy relief in the Presidency, an enhanced rate of capitation grant has been sanctioned to private bodies managing Leper Asylums, viz., Rs. 6-4-0 per mensem for each leper patient and Rs. 3 per mensem for each untainted child under 16 years. In 1929 the Government appointed a leprosy propaganda officer of the Presidency to tour throughout the Presidency and suggest in close co-operation with the District Medical Officers and District Health Officers and local bodies, proposals for combating the disease by the opening of leprosy clinics in each district, for educating the public by lectures with lantern slides on the benefits of early treatment of the disease and for the training of medical officers. The annual contribution of Rs. 5,800 from the British Empire Leprosy Relief Association has been utilized since 1929 towards the cost of this special officer and his staff. In 1931 a scheme for the reduction of the incidence of leprosy has been sanctioned by the Government.

(3) *Veneral diseases.*—The problem of dealing with venereal diseases is engaging the attention of Government. In pursuance of the recommendation of the Indian Delegation of the British Social Hygiene Council, the Government sanctioned in 1926 an

initial allotment of Rs. 50,200 for the purchase of drugs and equipment for the efficient treatment of venereal diseases in the more important hospitals in Madras City and in a few district headquarters hospitals. A specialist in venereal diseases has also been recruited from England for a period of three years from 28th December 1928 and he was in charge of a special Venereal department, consisting of 14 beds for males and 20 beds for females, in the General Hospital.

(4) *Hookworm campaign*.—In response to a request made by the International Health Board, of the Rockefeller Foundation, United States of America, the Indian Research Fund Association decided in 1915 to devote their attention to the subject of hookworm in India. An enquiry was started in this Presidency in 1916. An organized campaign against the disease was started in 1920 under the supervision of a Special Officer whose services were placed at the disposal of the Government of Madras by the International Health Board of New York. The Board continued the co-operation until the end of 1927. From the 1st April 1928, the campaign became a purely Government organization and functioned as an integral part of the Public Health Department under the name of the 'Rural Sanitation Work.' The following statement shows the treatment administered for hookworm diseases:—

1922	...	...	49,916	1927	...	...	100,170
1923	...	...	93,469	1928	...	...	207,889
1924	...	...	123,095	1929	...	...	26,600
1925	...	...	66,697	1930	...	...	305,307
1926	...	...	* 16,132	1931	...	...	279,829

* Excludes figures for medical institutions.

Propaganda work was intensively carried on to combat the disease by lectures with the aid of magic lantern slides, cinema films and pictorial posters. Demonstrations of various kinds were conducted in schools, colleges and villages.

(5) *Anti-rabic treatment*.—Since 1921 treatment for rabies has been made available in all the district headquarters hospitals (except the hospital at Ootacamund), the Lawrence Memorial Royal Military School, Lovedale, the hospitals at Tellicherry, Cochin and Palghat in the Malabar district and at Negapatam in the Tanjore district, at Tuticorin in the Tinnevelly district, at Kodaikanal in the Madura district and at Bhadrachalam and Koraput in the East Godavari and Vizagapatam Agencies as well as in the Pasteur Institute, Coonoor. The cost of such treatment was formerly recovered from local bodies; but the Government have decided to bear the whole expenditure from Provincial Funds.

(6) *Cancer*.—Treatment of cancer and other inoperable diseases by means of radium is being carried on in the several hospitals in Madras. The first supply of radium was obtained for this Presidency in the year 1926–27 and the stock is being increased from year to year. One of the Assistant Professors attached to

the Medical College underwent a special course of training in the technique of the subject at the Radium Institute, Ranchi, during 1928.

(7) *Mental disease.*—There has been a change in the outlook in regard to the treatment of mental diseases. The name ‘ Lunatic Asylum ’ has been discarded in favour of ‘ Mental Hospital ’ where scientific treatment can be afforded to mental patients rather than as prisons where lunatics are interned and restrained.

II. Medical Research.

Special medical research is carried on at the King Institute of Preventive Medicines, Guindy, and the Pasteur Institute, Coonoor. The former is controlled by the Medical Department while the latter is a quasi-public institution, the medical staff being provided by the Government. A Pharmacological Research Unit consisting of one Research Officer and one Research Chemist is also maintained in the Medical College, Madras, for conducting research on the indigenous drugs of South India.

For medico-legal purposes a special staff is maintained consisting of one Chemical Examiner and three assistants.

III. Medical Education.

The department now maintains two medical colleges one at Madras and the other at Vizagapatam, and two medical schools for men, one at Tanjore and the other at Rayapuram, and one medical school for women at Madras. There is also a private medical school for women run by certain missionary bodies and subsidized by Government at Vellore.

In 1925, a School of Indian Medicine was opened at Madras with a hospital attached to it in which instruction is given according to the indigenous system of medicine supplemented by instruction in certain subjects according to the Western system. The school consists of three sections, Ayurveda, Siddha and Unani and provides such training as will enable the students to become competent practitioners of Indian systems. The course of training is for four years and the medium of instruction is the vernacular (Tamil, Telugu or Urdu); but the subjects of Western medicine are at present taught in English.

The following statement shows the number of medical colleges and schools with their strength:—

	Medical Colleges.			Medical Schools.		
	Number. Year.	Number of scholars.		Number. Year.	Number of scholars.	
		Men.	Women.		Men.	Women.
1880	1	58		2	182	
1890	1	154		3	225	
1900	1	112		2	371	
1910	1	249	11	4	333	26
1920	1	327	25	5	1,033	29
1930		782	70	4	683	32
					(a) 89	(a) 772

(a) Exclusive of the number of students studying in the private (missionary) medical school for women at Vellore.

A.—Statement showing the number of medical institutions.

		1880.	1890.	1900.	1910.	1920.	1931.	
I. State Public }	13	16	19	14	44	189
II. State Special }				51	46	32
III. Local Fund ..			198	380	426	467	517	491
IV. Private aided ..			5	18	19	26	29	409
V. Private non-aided ..			2	1		36	54	73
VI. Railways			44	47	51
Total			218	415	464	637	737	1,245

* These include those subsidized by Government in rural areas.

B.—Statement showing the number of beds, in-patients, out-patients and the average attendance.

Year.	Number of beds.	Number of in-patients.	Daily average.	Number of out-patients.	Daily average.
1880	3,229	38,870	2,071	1,274,434	9,963
1890	3,552	47,739	2,223	2,663,418	17,796
1900	4,649	62,906	2,857	4,811,125	26,445
1910	5,317	77,633	3,429	6,007,735	36,721
1920	7,360	125,910	5,613	7,672,562	41,198
1931	9,451	207,847	8,476	14,209,576	92,249

C.—Statement showing income and expenditure.

Sources.	1880.	1890.	1900.	1910.	1920.	1931.
				rs.	rs.	rs
<i>Receipts.</i>						
From Government ..	2,76,266	3,75,572	88,493	8,01,981	25,82,064	58,96,252
Municipal and local funds	4,52,437	6,58,113	8,66,054	14,36,627	21,80,705	16,80,376
Interest on capital	17,982	17,940	14,525	26,706	44,388	31,295
Other sources	28,218	26,425	51,676	1,25,160	4,40,829	5,17,119
Total ..	7,74,903	10,78,050	10,20,748	23,90,474	52,47,936	81,25,042
<i>Expenditure.</i>						
Expenditure ..	..	7,48,497	10,78,050	10,17,800	23,75,675	52,28,284
						81,20,655

(ii) THE PUBLIC HEALTH DEPARTMENT.

The public health administration in the Presidency has undergone many changes. The law affecting public health is to be found in the Local Boards Act, the District Municipalities Act, the Madras City Municipal Act, the Town Nuisances Act, the Epidemic Diseases Act, the Registration of Births and Deaths Act, the Places of Public Resort Act, the Prevention of Adulteration Act and the Town Planning Act. These provide for the construction and maintenance of major sanitary works, such as water-supply and drainage, for all minor works such as markets, slaughter-houses, for conservancy and lighting arrangements, for the training and employment of Medical and Sanitary officers and vaccinators for the control of epidemics and for the accurate registration of vital statistics, for the proper lay out of towns and villages, the removal of congestion, the prevention of the overcrowding in

cinemas and theatres and the sale of adulterated articles of food. The Public Health Department, which is entirely provincial in character, has been, since the Reforms, in charge of the Minister for Public Health. In its present form it was organized in 1923.

Before 1880, there was a Sanitary Commissioner and a Deputy Sanitary Commissioner. The latter was in charge of the vaccination work and he was also required to take part in the sanitary inspection of the districts. In 1883 the District Surgeons were appointed as District Medical and Sanitary Officers and their duties were then to advise the Collectors in matters affecting the medical and sanitary administration of the district and also to supervise the vaccination.

In August 1899, the Government sanctioned the constitution of a Sanitary Board consisting of the Sanitary Commissioner and the Sanitary Engineer, which commenced work from 1st April 1890. In 1896 the Board was reconstituted, so as to include the Chief Engineer, Public Works Department, the Surgeon-General and a member of the Civil Service. The Sanitary Commissioner and Sanitary Engineer were only advisers of the Board. The Board continued to work till the end of 1920 when it was replaced by the Board of Public Health consisting of the Minister in charge of Public Health (President), the Secretary, Local Self-Government Department (Secretary), Deputy Secretary, Local Self-Government Department, Surgeon-General, Director of Public Health, Chief Engineer, Public Works Department, and the Sanitary Engineer.

In 1909, two additional Deputy Sanitary Commissioners were sanctioned, but they were only entertained at the end of 1913 when the Presidency was divided into three territorial ranges, Northern, Central and Southern, each under a Deputy Sanitary Commissioner.

Sanitary Inspectors and Deputy Inspectors of Vaccination.—Before 1895, men appointed as Sanitary Inspectors were given no training in practical and theoretical sanitation. The Government made a grant for a course of training of all English-speaking Sanitary Inspectors and the first training class assembled in January 1895.

→ In 1914, the practical training given to Sanitary Inspectors was improved by requiring the students undergoing training to do practical work with ward Sanitary Inspectors of the Corporation of Madras. The old quinquennial course of 1910 was replaced by the advanced course in Hygiene and Minor Sanitary Engineering.

In 1905 a class for the training of men for appointment as Deputy Inspectors of Vaccination was held for the first time.

In the same year Sanitary Assistants to the District Medical and Sanitary Officers were appointed for the first time in a few districts. These Sanitary Assistants were expected to exercise wholesale check over the work of vaccination and Deputy Inspectors of Vaccination and this scheme was continued till 1920.

Cholera parties.—At the close of the year 1912 Government sanctioned the creation of a small reserve of Sanitary Inspectors consisting of two parties of ten Sanitary Inspectors each under the direct charge of an Assistant Surgeon for cholera prevention work. These cholera parties were gradually increased by Government and in the beginning of 1922 eight parties were working. These parties had their headquarters at Madras. Owing to the delay on the part of the officers responsible for the registration of vital statistics in making prompt reports of outbreaks of cholera and the time required for the transfer of a party from one district to another, the preventive staff was not able to do real preventive work, under the system which was then in force. Little effective control could be maintained over the Deputy Inspectors of Vaccination, 103 in number. The Collector was responsible for plague; the cholera parties were controlled by the Sanitary Commissioner while vaccination was under the management of local bodies. It was impossible for the District Medical and Sanitary Officer, the recognized sanitary adviser for the local bodies, adequately to supervise or co-ordinate sanitary work as his time was so fully occupied with hospital work.

In order to rectify the above defects in the machinery of administration the following changes were effected. In 1922, the Government directed the amalgamation of the services of Deputy Inspectors of Vaccination and Sanitary Inspectors belonging to cholera parties. Subsequently they disbanded three of the cholera parties and, as a tentative measure, distributed the Sanitary Inspectors among five selected districts, each of which was provided with a trained Health Officer and a staff consisting partly of Deputy Inspectors of Vaccination and partly of Sanitary Inspectors from the cholera parties. The result was most encouraging and with effect from 1st April 1923 the Government abolished the remaining cholera parties and sanctioned the employment of a health staff in each district which would deal with all epidemic diseases and would be responsible for public health work in general. Each district now has a trained District Health Officer with 8 to 15 Inspectors who can be concentrated at any portion of the district in case of necessity. The establishment of a complete self-contained public health staff working under the district boards was a great advance. The lines on which the campaign against disease was to be conducted had been well laid down, and the scheme, which was completed in April 1923, marked a distinct stage in the development of the Public Health Department.

In the beginning of 1923, there were six sanctioned appointments of Assistant Directors of Public Health. Three Assistant Directors were in charge of the three ranges into which the Presidency was divided, viz., Northern, Central and Southern, with headquarters at Waltair, Madras and Coimbatore. Two Assistant Directors were in charge of "Vital Statistics" and "Fairs and Festivals." With the introduction of the complete district health

scheme, the District Medical Officers were relieved of their duties as Sanitary Officers and the major portion of the routine public health administration of the districts was transferred to the District Health staff. It was therefore considered unnecessary to retain the territorial jurisdiction for Assistant Directors. The Medical and Public Health Retrenchment Committee at the same time recommended the abolition of three posts of Assistant Directors of Public Health. With effect from 1st October 1923, therefore, the Assistant Directors of Public Health were given functional duties, and had their headquarters in Madras. Since then, one Assistant Director has been in charge of "Vital Statistics and Propaganda," one has charge of "Vaccination and Smallpox" and the third deals with "Epidemics and Fairs and Festivals."

In 1913 a scheme was sanctioned under which it was proposed to employ Health Officers in 31 municipal towns. The service was to be entirely municipal. In order to stabilize the services of Municipal Health Officers and to attract a better type of men, Government provincialized this service from April 1924 and agreed to pay 75 per cent of the salaries. At the present time Health Officers are employed in 47 of the 82 municipalities in the Presidency.

The need was then felt for a central agency which would be able to originate schemes and co-ordinate the activities of all voluntary organizations engaged in health propaganda work. Such an agency was formed in April 1923. The Madras Health Council, as the new organization was styled, consisted of a non-official gentleman and representatives of the Medical and Public Health and Educational departments, one of the Assistant Directors of Public Health acting as Honorary Secretary. The preparation of magic lantern slides, leaflets, pamphlets and posters on health subjects was entrusted to a technical sub-committee of the Council. From April 1923 to April 1927, the Madras Health Council prepared and supplied thousands of leaflets, etc.

The experience gained by the Madras Health Council during these four years has given valuable information as to the kind of propaganda, materials, etc., which are most appreciated by the people. The demands for the Council's materials continued to increase so rapidly that, with the restricted funds at its disposal, it was found impossible to meet them. The suggestion was therefore made that a propaganda section should be created in the office of the Director of Public Health to carry on the work of the Madras Health Council from 1st April 1927. The Madras Health Council agreed to dissolve, and hand over all their stocks of lanterns and literature to the new section. The proposals were sanctioned by the Government, and, with effect from 1st April 1927, an officer with the necessary qualifications was appointed.

A Malaria Board was created in 1911. The first Member of the Board of Revenue was appointed President and the members were Surgeon-General and Sanitary Commissioner. A Special

Malaria Officer was appointed in February 1912 and considerable progress was made in the investigation of malarial conditions, but the outbreak of War in August 1914 put an immediate stop to the work. The Malaria Board was in existence until the end of 1920 when it was amalgamated with the newly instituted Public Health Board. From 1st April 1927 a temporary Malaria Officer with one Assistant Surgeon was sanctioned for malarial investigation in the Presidency.

In order to investigate and carry out research on the causation and prevention of diseases other than epidemics such as beri-beri guineaworm, etc., which on account of their mortality or morbidity caused by them, are of great importance from the standpoint of public health, a Research Unit under a first-class Health Officer was sanctioned and a Research Officer was appointed during 1930.

In view of the urgent necessity to provide for maternity and child-welfare relief in the Presidency a Lady Assistant Director of Public Health with the necessary staff was sanctioned during 1930.

Since the introduction of the health scheme in 1923 much has been done to improve the sanitation of rural areas.

The spread of infectious diseases is checked at the beginning by the Health staff, who maintain a systematic record of the history and periodicity of each epidemic disease that breaks out in the district and thus trace out the foci of infection and take timely measures to prevent its outbreak. The adoption of preventive measures has resulted in a decrease in mortality as compared with previous years as is shown below:—

Year.	Cholera.	Smallpox.	Plague.
1880 .. .. .. .. ..	..	14,259	..
1890	35,288	28,092	..
1900	60,662	27,692	895
1910	32,594	19,198	4,867
1921	27,084	9,792	11,875
1922	16,502	22,801	9,193
1923	5,169	24,434	12,110
1924	51,971	18,810	3,922
1925	44,815	20,478	2,014
1926	24,407	10,957	2,143
1927	35,834	7,781	2,457
1928	57,677	7,618	2,106
1929	25,846	9,708	1,801
1930	10,746	8,025	1,459
1931	30,232	4,660	1,073

The progress of vaccination has been marked owing to the better system of supervision and control and the great improvement effected by the King Institute in the manufacture of vaccine.

Since the reorganization of the Public Health Department there has been a progressive improvement in the registration of births and deaths and the compilation of returns. The officers of the department have been able to detect many omissions in registering births and deaths. The Madras Registration of Births and Deaths Act, 1899, is being gradually extended to rural areas, especially to villages with a population of 2,000 and above.

Water-supply and drainage.—The following statement shows the number of water-works completed up to date:—

Up to—

1880	...	...	...	...	...	...	1
1890	...	...	...	...	...	...	1
1900	...	...	...	...	...	...	12
1910	...	...	...	...	...	...	21
1920	...	...	...	...	...	...	30
1929	...	...	...	...	...	...	35
1931	...	...	...	...	...	...	37

Fourteen new water-supply schemes were under execution or had been taken up for execution by the department during 1931. Three water-supply schemes were in their final stages of execution.

At the end of 1931, three towns had an efficient drainage system.

Anti-drink propaganda.—The Legislative Council passed a resolution on 22nd October 1927 recommending to Government that total prohibition of drink in the Presidency within a course of twenty years be declared to be their goal. The Excise Advisory Committee considered that the first essential step to give effect to the resolution was the creating of an active public opinion throughout the Presidency against the use of alcoholic drinks and the education of the masses on the evils of drink so that any temperance legislation undertaken might have the co-operation and support of the general public. On this recommendation Government decided that propaganda should be carried out throughout the Presidency and sanctioned a scheme for the purpose in June 1929.

District committees were formed throughout the Presidency to do propaganda work. The scheme was in operation till September 1931, after which it was abolished on account of financial stringency.

Food adulteration.—The Prevention of Adulteration Act was passed in 1918 and a Public Analyst was appointed in 1924. The Act is not applicable to the Presidency as a whole but only to such local areas as the Government may by notification in the *Fort St. George Gazette* direct. It was first extended to local areas only in July 1929 and has till now been extended to the Madras City, sixteen municipalities and one panchayat area. Till the local bodies are able (1) to make arrangements for the analysis of samples from their areas and (2) to pay for their own Analysts, the Government Public Analyst has been appointed as their Analyst for analysing the samples of food. Rules prescribing the standards of purity of certain articles of food, the state in which utensils and vessels used for manufacturing and containing food intended for sale should be kept, etc., have been framed by the Government. The local bodies have just begun to work the Act vigorously.

15. SPECIAL MEASURES FOR THE BENEFIT OF THE DEPRESSED CLASSES.

In 1881 the population of the depressed classes in this Presidency was 4,439,233; in 1891 their numbers were 5,162,086 an increase of about 725,000 or 17 per cent, while the percentage of increase of the whole population for the Presidency was only 15.5. The several disabilities under which these classes laboured engaged the attention of the Local Government in 1891 when measures were adopted to improve their condition.

The Government decided in 1893 to give them the following educational facilities :—

An additional stipend of Rs. 2 was sanctioned to persons of this community who were under instruction in training schools under public management.

Enhanced scholarship grants were afforded to those who sought admission in training schools under private management. The establishment of special schools was recognized by Government and local bodies were urged to open them in all large suburbs where such institutions did not already exist.

The Government offered to assign sites of waste lands for such schools. Local bodies were also requested to acquire private lands for the purpose.

Half the standard fee was already foregone in the case of students of this community and provision already existed in the Grant-in-aid Code for the supply of books, slates, etc., and furniture. The result stipends were ordered to be paid at the maximum rates.

While in 1892–93 there were 31,349 pupils reading in 1,411 public institutions of which one was under Government and 93 under municipalities or local boards, 790 aided and 527 unaided, there were on 31st March 1916, 148,954 pupils reading in 5,242 public institutions of which 14 were under Government and 657 under municipal or local boards, 3,850 aided and 721 unaided.

In 1892–93 there were also 26 private institutions with 310 pupils, while in 1915–16 there were 123 such schools with 2,638 pupils.

While in 1892–93 there were only 11 primary schools for girls there were 90 elementary schools in 1915–16.

The percentage of scholars to school-going population for 1892–93 was 5.1 for males and 0.83 for females, while the corresponding figures for 1915–16 were 29.4 and 5.7, respectively. The figures indicate a decided advance. The proportion of the number of schools for the depressed classes under public management (Government or board) as compared with those under private (mission or non-mission) management also increased from $\frac{1}{4}$ in 1892–93 to

between $\frac{1}{8}$ and $\frac{1}{9}$ in 1915–16. A large number of schools under private management were maintained by mission agencies, there being 3,342 schools with 89,551 pupils during 1915–16.

Further concessions were allowed in 1915 to the depressed classes to pupils to encourage the spread of education among the community:—

(i) They were admitted into elementary schools under public management without payment of fees and into secondary schools on payment of half the standard rates.

(ii) Increased capitation grants on behalf of these pupils were allowed in aided elementary schools, and in the case of aided secondary schools half the fee income foregone from such pupils was added to the teaching grants payable.

(iii) Increased rates of stipends in Government training schools and of stipendiary grants-in-aided training schools were allowed to the depressed classes and a separate training school for masters belonging to this class was maintained by Government at Madras.

The combined result of the concessions allowed to pupils of the community by Government and of the increasing interest taken by Christian missionaries and other societies in their welfare was substantial progress in their education.

Elementary education supplemented in some cases by industrial training was generally imparted in the schools maintained for them. The education was usually free and in some cases the pupils were also supplied gratis with food, clothing and school accessories.

Institutions chiefly intended for depressed classes on the 31st March 1916.

MADRAS PRESIDENCY, 1881—1931

129

Classes of institutions.		Public institutions.						Total of public institutions.						Private institutions.		Grand total.		
Government.		Municipal Board.	Local Board.	Aided.	Unaided.	Public institutions.			Total of public institutions.			Public institutions.			Private institutions.		Grand total.	
Boarding schools.		Pupils.	Boarding schools.	Pupils.	Boarding schools.	Pupils.	Boarding schools.	Pupils.	Boarding schools.	Pupils.	Boarding schools.	Pupils.	Boarding schools.	Pupils.	Boarding schools.	Pupils.	Boarding schools.	Pupils.
Public institutions—																		
Secondary schools for Girls	11	431	79	4,649	572	19,952	3,766	101,836	713	16,277	5,741	345	143,144	345	4	141	143,144	345
Elementary schools for Boys	2	171	..	..	6	212	..	74	4,464	8	438	90	6,286	..	..	90	6,286	..
Training schools for Masters	1	69	..	..	..	..	1	..	92	..	..	2	88	..	2	88	..	
Other special schools for Mistresses	..	..	..	..	..	..	..	..	..	..	..	5	92	..	..	..	..
Total of public institutions ..	14	661	79	4,649	578	20,164	3,860	106,766	721	16,715	6,242	148,964	..	..	..	6,242	148,964	..
Private institutions—																		
Advanced schools for G.I.W.	Boys	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Elementary schools for Boys	Boys	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total of private institutions ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Grand Total ..	14	661	79	4,649	578	20,164	3,860	106,766	721	16,715	6,242	148,964	123	2,638	123	6,368	161,694	..

Scholars (Depressed classes) in public Schools in the different stages of instruction.

	1914-15.		1915-16.	
	Boys.	Girls.	Boys.	Girls.
Arts college for men .. ..	..	..	..	..
Professional colleges .. ..	..	..	..	..
Secondary schools for boys—Non-European.	819	64	684	1
Secondary schools for girls—Non-European.	..	26	3	56
Elementary schools for boys—Non-European.	85,373	15,457	93,546	16,800
Elementary schools for girls—Non-European.	316	2,254	367	2,436
Middle schools for boys—For Europeans	3	..	..	..
Training schools for masters ..	178	3	161	1
Training schools for mistresses ..	..	1	..	..
Other special schools	34	..	68	1
Total ..	86,728	17,805	94,777	19,295

The Government also adopted special measures to assign lands to them for cultivation. All bought-in-lands were exclusively reserved for such assignments. House-sites were provided for by assigning waste lands or by acquiring suitable sites; and steps were taken to provide drinking-water wells. Extensive tracts to the extent of 1,411.68 acres were made over to missionary bodies for the formation of agricultural settlements for this community and 5,109.56 acres were granted to the Salvation Army for the formation of settlements for the depressed classes who had criminal propensities.

Co-operative societies also were started for their benefit. There were 53 co-operative societies in 1918 for this community of which 42 were agricultural.

When the condition of the depressed classes was surveyed in 1918 it was noticed that, however liberal or generous might have been the attitude of Government towards them and whatever might be the facilities created for the improvement of their condition, the effect desired was not likely to be produced as long as there was no separate agency to carry out the policy of Government in this respect. Proposals for improving their condition approved from time to time failed of effect for want of a special organization to carry them out. There was generally indifference and often hostility to measures calculated to uplift the depressed classes. It was therefore considered desirable to appoint a special officer with a suitable staff as a Protector of the Depressed Classes and such an officer was first appointed for this Presidency in 1919.

His duties were to study the economic condition of these classes, to see that the philanthropic bodies working for their benefit received such help from Government as they required, to deal with the problems connected with the education of the depressed classes, and generally to propose measures for the improvement of their

condition. His proposals comprised measures for the acquisition of house-sites for them, the extension of education by opening separate schools wherever necessary or by making arrangements for their admission to the ordinary schools, the starting of co-operative societies, the provision of drinking-water wells, village roads, burial grounds, latrines, etc., and the assignment to them of waste land for cultivation.

The scheme was first started in 1918 when a Deputy Collector was placed on special duty in Tanjore to purchase house-sites for the depressed classes. From this beginning the Labour Department was evolved in 1920. The operations were soon extended to the district of Godavari and then to Chingleput. The scheme is being worked now in 19 districts, with 19 District Labour Officers under the Commissioner of Labour. The statement appended below shows the progress of the scheme from 1920–21 to 1929–30.

House-sites.—House-sites for the depressed classes are provided as follows:—

- (1) By assigning waste land or suitable poramboke land at the disposal of Government; and
- (2) by acquiring land from private owners for assignment to the depressed classes.

In the former case the assignment is usually free; and in the latter, the cost of acquisition is advanced by Government as a loan either to individual members of the depressed classes direct or to co-operative societies organized among them; the advances are recoverable from them in easy instalments. Particulars of land acquired for house-sites and the amount of compensation involved is shown in the statement. So far as clause (1) is concerned, the extent of Government land assigned for house-sites is shown below:—

In—

							ACS.
1925–26	...	...	...	...	...	...	206½
1926–27	...	...	...	...	...	...	514.77
1927–28	...	...	...	...	...	...	503.29
1928–29	...	...	...	...	...	...	640.83
1929–30	...	...	...	...	...	...	687.48
1930–31	...	...	...	...	...	...	557.41

The total number of house-sites provided by this method since the commencement of the special operations is 30,116. The total number of house-sites provided by acquisition of land since the inception of the department is 36,530.

Land assigned for cultivation.—The land assignments are made by the Revenue Department. In each district certain waste lands are reserved for assignment to the depressed classes. The special staff assist in the distribution by inspecting the lands reserved, eliminating useless land and adding fresh land where available and by bringing to notice deserving applications and making arrangements to settle families where large blocks are thrown open for

cultivation. A perusal of the figures in the statement appended shows that up to the end of 1931, 342,611 acres of land were assigned for cultivation while the extent assigned for cultivation in 1920–21 was 19,251 acres.

Co-operative societies.—The main purposes for which the co-operative societies were organized are—

- (1) Acquisition of house-sites by the payment of easy instalments.
- (2) Loans for agricultural purposes.
- (3) Flood relief.
- (4) Rural credit.
- (5) Collective bargaining.

The Government finance the first three kinds of societies, and the others depend for their finance on the co-operative banks, chiefly the Christian Central Co-operative Bank, Madras. The number of societies shown in the statement represents those in charge of the Labour Department. Over and above these there are societies in charge of the Co-operative Department. The number of such societies at the end of the year 1930–31 was 1,632.

Water-supply.—Up to the end of 1929, 1,958 wells were sunk for the use of the depressed classes. Sites for footpaths, approaches to the main roads, burial-grounds and latrines were also acquired wherever found necessary.

In the City of Madras a sum of Rs. 58,000 was spent by the department in 1930–31 for the construction of drains, for making roads and metalling them, construction of baths and latrines and planting avenues in five Government cheris.

The City Tenants' Protection Act of 1922 which was passed into law at the instance of the Labour Commissioner is a piece of Legislation which is of special benefit to the depressed classes, as by this Act many tenants belonging to the community in the City who had erected buildings on other's lands were relieved of the constant threat of eviction by the landlords.

Education.—The educational activities of the Labour Department for the benefit of the depressed classes consist of the following:—

- (1) Taking steps through the Educational Department to get depressed class pupils admitted to existing local board or aided schools and, where this is not practicable, opening separate elementary schools in consultation with the District Educational Officers.
- (2) Maintaining hostels for them and paying boarding grants.
- (3) Sanctioning of scholarships and stipends.
- (4) Granting subsidies to philanthropic bodies working for the educational uplift of the depressed classes by starting schools or hostels.

A glance at the statement shows the great progress made by the department in establishing schools. In 1920–21 the number of schools was 109 with 3,037 pupils, while at the end of 1930–31 there

were 1,784 schools with 63,604 pupils. Besides these schools, local bodies and missionary societies are also maintaining special schools for them. The total number of public institutions chiefly intended for this community increased from 7,007 in 1920-21 to 11,324 in 1930-31 and their strength from 193,260 to 354,248. The total number of pupils in this class in public schools rose from 140,652 in 1920-21 to 301,917 in 1930-31. The corresponding figures for 1890-91, 1900-01 and 1910-11 are given below:—

	Chiefly intended for the depressed classes.	Number of pupils in public schools.
	Number of institutions.	Number of pupils.
1890-91		22,050
1900-01	..	59,842
1910-11	2,636	101,748
		49,072
		105,684

The expenditure on the depressed schools is shown below:—

	Public funds.	Fees.	Other sources.	Total.
	RS.	RS.	RS.	
1900-01	85,225	12,735	1,61,914	2,59,874
1910-11	2,47,292	17,546	2,86,626	5,51,464
1920-21	6,90,096	22,437	5,06,057	12,18,590
1930-31	21,12,134	16,548	8,06,034	29,34,716

As an encouragement to the boys and to enable even the poorest parents to send their children to school, a scheme for the grant of scholarships by the Labour Department was sanctioned by Government in 1923-24 and 550 scholarships tenable from Class IV to VI and 220 fee remissions tenable in Forms I to VI were instituted. In addition, 110 scholarships were instituted in 1924-25 for pupils who do not attend general educational courses but have an aptitude for industrial subjects. They are granted to pupils learning fitting, and driving, carpentry, blacksmithy, and weaving, and two of them have been set apart for girls learning lace-making. In 1927-28, the educational scholarships were increased from 550 to 610 and in 1928-29 to 635. In 1930-31, the Commissioner spent a sum of Rs. 456 by granting fee remissions to 5 scholars appearing for University examinations, 11 for the S.S.L.C. examination, 46 for Teachers' Training School-leaving Certificate, 5 for Technical examinations and 5 for Commercial examinations.

Hostels.—There are three hostels for boys of the depressed classes maintained at the cost of the Government, at Madras, Masulipatam and Calicut. These hostels admit only pupils studying in general educational institutions. During 1928-29, a fourth hostel was opened at Perambur for the benefit of the depressed classes studying in industrial institutions in the City or serving as apprentices in industrial concerns. Pupils who are in very poor circumstances but are desirous of having higher education are selected from outside the stations where the hostels are located and are given free boarding and lodging. They generally get a scholarship in addition, to enable them to pay the school-fees and purchase school requisites.

In 1919, the Government impressed on local bodies the obligation which rested upon them to consider seriously and remove gradually and persistently the difficulties and disabilities to which the pupils of this class are subjected. The following instructions were also issued for the guidance of the local bodies and Educational officers:—

(1) Where a school under public management is situated in an agraharam, chavadi or temple, or other area from which depressed class children are excluded, steps should be taken to transfer the school to some locality to which all classes of the population have access.

(2) In cases, where the private owner of a rented school building objects to children of the depressed classes being admitted into it, steps should be taken to secure for the school some other building in respect of which this objection cannot be raised.

(3) No school building should be constructed out of public funds unless it is certified that it is in a locality accessible to all classes including depressed classes.

As a result of these orders, the schools under public management accessible to the children of the depressed classes increased.

In 1930–31, of 17,851 schools under public management 16,581 were accessible to the children of the depressed classes and in 7,267 they were admitted freely.

Representation of Members of the Depressed Classes on the Legislative Council and Local Bodies.

Legislative Council.—The number of members nominated in the Legislative Council in 1920 and subsequent years was as follows:—

1920	...	...	...	...	...	...	...	5
1923	...	...	...	...	...	...	...	9
1926	...	...	...	...	...	...	...	10
1930	...	...	...	...	...	...	...	10

Local bodies.—The following figures show the number of local bodies in which depressed classes had representations:—

	District boards.	Taluk boards.	Municipalities.
<i>1921–22.</i>			
Number of district boards ..	25		
Number of taluk boards ..	125		
Number of municipalities ..	79		
<i>1924–25.</i>			
Number of district boards ..	24		
Number of taluk boards ..	126		
Municipalities ..	80		
<i>1928–29.</i>			
Number of district boards ..	25		
Number of taluk boards ..	129		
Municipalities ..	81		

Statement showing the progress made in providing house-sites, wells, schools and co-operative societies for the depressed classes up to 31st March 1931.

(The figures given in respect of 1921-22 to 1930-31 are inclusive of the figures for the previous years.)

Items.	1920-21.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.	1926-27.	1927-28.	1928-29.	1929-30.	1930-31.
1. Area of houses-sites acquired by Government in acres.	137	248	514	781	987	1,129	1,316	1,490	1,656	1,881	2,020
2. Amount of value involved for acquisition in rupees.	1,19,926	2,38,082	4,65,186	7,83,400	9,98,578	12,29,994	14,19,262	15,35,420	16,30,493	17,65,362	18,55,298
3. Area of lands assigned for cultivation in acres.	19,251	49,759	67,778	99,249	137,110	180,021	206,200	237,227	278,096	3,19,841	3,42,611
4. Number of co-operative societies for depressed classes registered.	102	217	334	649	969	1,171	1,329	1,636	1,652	1,810	1,858
5. Number of walls sunk for depressed classes.	43	129	366	519	619	834	1,130	1,490	1,968	2,378	2,781
6. Number of schools ..	109	164	254	494	656	723	926	1,178	1,405	1,583	1,784
7. Number of scholars ..	3,037	1,302	9,069	14,494	22,214	25,606	33,918	42,799	49,995	56,536	63,804
	B. 1,179	*	B. 12,386 G. 1,608	B. 19,774 G. 2,440	B. 22,417 G. 3,189	B. 29,239 G. 4,670	B. 36,385 G. 5,914	B. 42,091 G. 7,904	B. 47,262 G. 9,274	B. 52,858 G. 10,746	

* Particulars as to the number of boys and girls not available.

16. EMINENT MADRASIS.

Many Madrasis have distinguished themselves on the High Court and in the administration of Government.

Of recent years many Indians from the Madras Presidency have won distinction outside their own province and achieved reputation throughout India, the Empire, and the world. Some of the more eminent are mentioned in the following paragraphs:—

Rajagopala Achariyar, Diwan Bahadur Sir P., M.A., B.L.—Diwan Bahadur, 1907; C.I.E., 1911; K.C.S.I., 1921; joined the Madras Civil Service as a Statutory Civilian, February 1888; Diwan of Cochin, 1896–1902; Collector and District Magistrate, 1904; Registrar of Co-operative Societies, Madras, 1902–07; Diwan of Travancore, 1907–15; Secretary to Government of Madras, Judicial Department, 1916; Member of the Executive Council of the Governor of Fort St. George, 1917–19; gave evidence before the Royal Public Services Commission; President of the Madras Legislative Council, 1919–23; Member of the Council of Secretary of State; died in 1928.

Sir C. Sankaran Nayar, Kt.—Kt. Cr., 1912; C.I.E., 1904; B.A., B.L., High Court Valkil, Government Pleader and Public Prosecutor to the Government of Madras; Advocate-General; Judge, High Court, Madras; Member of Governor-General's Executive Council in India, 1915–19; Member of Council of the Secretary of State for India, 1919; elected Member of the Council of State, 1925; Chairman, Central Advisory Committee to the Simon Commission, 1927.

Sir B. Narasimheswara Sarma.—Was elected Member of the Madras Legislative Council for several successive terms; elected non-official representative, the Imperial Legislative Council, 1918–20; Member of Governor-General's Executive Council, 1921–25; retired, 1925; President, Railway Rates Advisory Committee, Calcutta.

Sir Md. Habibulla Sahib Bahadur, Khan Bahadur, K.C.S.I., K.C.I.E., Kt.—Honorary Chairman, Vellore Municipal Council, 1895–98; paid Secretary of the Municipality, September 1901 to 1905 when he was made its paid Chairman; Khan Bahadur in 1905; Vice-President of the North Arcot District Board; non-official President of the Vellore Taluk Board; President of the District Board; Member of the Legislative Council, 1909–12; temporary Member of the Madras Executive Council; Commissioner, Madras Corporation, being the first non-official to be appointed to that office in 1920; C.I.E., June 1920; Member of Madras Executive Council, December 1920–24; Provincial Representative on the Indian

Reforms Committee; Knighthood, June 1922; a member of the Royal Services Commission on the Superior Civil Services in India, November 1923. Led the Indian Delegation to the Round Table Conference in South Africa, 1926; K.C.I.E., June 1924; K.C.S.I., June 1927. Led the Indian Delegation to the League of Nations, Geneva, 1929; Member, Viceroy's Executive Council, 1924–29.

The Rt. Hon'ble V. S. Srinivasa Sastri, P.C., C.H.—Joined the Servants of India Society in 1907, succeeded the late Mr. G. K. Gokhale in its Presidentship in 1915; Member, Madras Legislative Council, 1913–16, elected Fellow of the Madras University, 1909, to Imperial Legislative Council, 1916–20; Member, Southborough Committee; served on Aeworth's Indian Railway Committee, 1921–22; went to England as Member, Moderate Deputation, 1919; represented India at Imperial Peace Conference, 1921, at the meeting of the League of Nations at Geneva and the Washington Conference, during the same year; appointed Privy Councillor and received the freedom of the City of London, 1921; undertook tour in the Dominions as the representative of Government of India, 1922; Member, Council of State, 1921–24; Member of the Deputation of the Legislature on Kenya, 1923; Member of the Indian Delegation to South Africa for Round Table Conference, 1926–27; Agent-General in South Africa, 1927–28; Member, Whitley Commission; went on Deputation to Kenya, 1929.

Sir T. Vijayaraghava Acharya, K.B.E.—Entered Madras Provincial Civil Service, 1898, and served as Deputy Collector; Revenue Officer, Madras Corporation, 1912–17; President, Madras Corporation, 1917; Special duty in the Department of Industries, 1928; K.I.H. Medal (Second Class), 1917; Diwan of Cochin, 1919–22; Commissioner for India for British Empire Exhibition, Wembley, 1922–25; Official Member, Indian Legislative Assembly, 1925–26; Member, Public Services Commission, India, 1926–29; Vice-Chairman, Imperial Council of Agriculture Research since 1929.

Sir K. Venkata Reddi Nayudu, Kt.—A leading Member of the Kamma community; elected to the First and Second Legislative Council; Minister for Development, 1919–23; appointed Agent-General in South Africa; visited England as a Member of the Non-Brahman Deputation and gave evidence before the joint Committee of the Parliament.

Prof. Sir C. V. Raman.—Graduate of the Madras University winning the University Gold Medal for Proficiency in Physics, 1904; M.A., first class, 1906; in 1912 he submitted a thesis to the Madras University on "The Maintenance of Vibration" which won him the Curzon Prize; in the same year he received the Woodburn medal for general research; Palit Professor of Physics in the University of Calcutta and Honorary Professor of Physics at the Benares Hindu University, 1917; Editor, *The Raman Journal of Physics*; made his first visit to England, 1921; prior to 1921 his researches were in the field of Acoustics, but after 1921

he took up Modern Physics and started a number of investigations on the Scattering of Light; Fellow of the Royal Society of London, 1924; invited to the California Institute of Technology, Pasadena, as a Research Associate, where he delivered an extensive course of lectures on "Light Scattering;" he also accepted the invitation of the Stamford University at Palo Alto to deliver a course of lectures; after visiting prominent scientific institutions and scientists in America and Europe, returned home in 1925; five months later, he again left India to attend the celebrations of the Russian Academy of Science at Leningrad and Moscow where he lectured on "The Structure of Benzene" before the Mendeleef Congress of Chemists; the Italian Society of Sciences, Rome, awarded Professor Raman the Matteuci Gold Medal; he was knighted in 1929; he was invited to open a discussion on the subject of his discovery at Bristol in September 1929 on the occasion of the meeting of the Faraday Society; invited to give lectures before prominent British and Continental University and before various Physical Societies; Honorary Degree of "Doctor Philosophiae Naturalis" from the University of Freiberg and the Honorary membership of the Physical Society on the occasion of his visit to Zurich; Hughes Medal awarded by the Royal Society; Nobel Prize for Physics, 1930.

Rudhakrishnan, Sir S., M.A., D. Litt. (Hon.).—Assistant Professor of Philosophy, Presidency College, Madras, 1911–16; Professor of Philosophy, Presidency College, 1916–17; University Professor of Philosophy, Mysore, 1918–21; Upton Lecturer, Oxford, 1926; travelled in England and the Continent and delivered many lectures, 1927; Professor of Philosophy, Oxford 1929–30; Professor, Calcutta University, 1931.

Muthuswami Ayyar, Sir T.—C.I.E., 1878; Knight, 1892; Record-keeper, Tanjore Collectorate; Deputy Inspector of Schools; Inspector of Schools; District Munsif; Inam Deputy Collector; Sub-Judge, 1865; Police Magistrate, Madras, 1868; Small Causes Judge; first Indian Judge, High Court, Madras, 1878–95; acted as Chief Justice, High Court, 1891; died in 1895.

Subrahmanyam Ayyar, Dr. Sir S.—Awarded Certificate of Merit, 1877; K.C.I.E., 1900; first Indian to receive the Honorary degree of Doctor of Law of the University of Madras, 1908; Clerk, Madura Collectorate; Tahsildar, Madura; High Court Vakil; Municipal Councillor and Member, Local Board, Madura, 1870; twice nominated as a Member of the Madras Legislative Council; Fellow of the Madras University, 1885; and connected with it till 1907; first Indian Government Pleader, 1888; Judge, High Court, Madras, 1895; acted as Chief Justice in 1899, 1903 and 1906; retired from the Bench in 1907; died in 1924.

Bhashyam Ayyangar, Rai Bahadur Sir V., B.A., B.L.—High Court Vakil; Member, Madras Legislative Council; Advocate-General; Judge, High Court, Madras, 1901–04; resigned and resumed practice in 1904; died in 1908.

Kumaraswami Sastri, Diwan Bahadur Sir C. V.—Diwan Bahadur, 1911; Sir, 1924; High Court Vakil, 1894–1905; Judge, Small Cause Court, Madras, 1905; Judge, City Civil Court, Madras, 1906; District and Sessions Judge, 1912–14; Judge, High Court, Madras, 1914–29; acted as Chief Justice, High Court, Madras, 1929; retired in 1929.

Krishnaswami Ayyar, V., B.A., B.L.—Kaiser-I-Hind Medal (First Class), 1909; C.S.I., 1911; Lecturer, Law College, Madras, 1892–95; High Court Vakil; Member, Syndicate of the Madras University; University representative in the Madras Legislative Council, 1907; Judge, High Court, Madras, 1909–11; Member of the Executive Council of the Governor of Fort St. George, 1911; died in 1911.

Ramaswami Ayyar, the Hon'ble Sir C. P., B.A., B.L.—C.I.E., 1923; K.C.I.E., 1925; High Court Vakil, 1903–19; elected Member, Corporation of Madras, 1912; Member of the Syndicate of the University of Madras, 1912; Advocate-General, 1920–23; Member of the Executive Council of the Governor of Fort St. George, 1923–28; Provincial Scout Commissioner of the Boy Scouts Association; represented India in the Assembly of the League of Nations in 1926 and 1927; Delegate to the Indian Round Table Conference, 1931; Acting Member of the Executive Council of the Viceroy of India.

Sivaswami Ayyar, Sir P. S., M.A., B.L.—C.I.E., 1908; C.S.I., 1912; K.C.S.I., 1915; Assistant Professor, Law College, Madras, 1893–99; Member, Madras Legislative Council, 1904–07; Advocate-General, 1907–12; Member of the Executive Council of the Governor of Fort St. George, 1912–17; Vice-Chancellor of the University of Madras, 1916–18; Vice-Chancellor of the Benares Hindu University, 1918–19; elected Member of the Indian Legislative Assembly, 1920; Member of the Indian Delegation to the Third Session of the Assembly of the League of Nations.

Rangachariyar, Diwan Bahadur T.—Diwan Bahadur, 1909; C.I.E., 1925; High Court Vakil; Professor, Law College, Madras, 1897–99; Member, Corporation of Madras, 1908–22; Member, Madras Legislative Council, 1916–19; Chairman, Madras Publicity Board, 1922–23; Member of the first two Indian Legislative Assemblies; President, Indian Telegraph Committee; Member, Railway Financial Committee; Racial Distinctions Committee; North-West Frontier Committee; Esher Committee and Kenya Committee; represented India at the opening ceremony by His Royal Highness the Duke of York of Canberra, the Federal Capital of Australia, 1927; elected Member of the Indian Legislative Assembly and Chairman, Army Retrenchment Committee.

Patro, Rao Bahadur Sir A. P., B.A., B.L.—Rao Bahadur, 1920; Knighted in 1924; elected Member of the Madras Legislative Council since 1921; Minister to the Governor of Fort St. George, 1921–26; Delegate Substitute of India to the League of Nations,

Geneva, 1931; Delegate to the Indian Round Table Conference, 1931–32; Member of the Consultative Committee of the Indian Round Table Conference.

Annamalai Chettiar, the Hon'ble Diwan Bahadur Raja Sir S. R. M. M.—Rao Bahadur, 1912; Diwan Bahadur, 1922; Knight, 1923; Hereditary Raja, 1929; Banker and merchant; Member, Madras Legislative Council, 1911–18; elected Member of the First, Second and Third Council of State; life-member of the Madras University; founder, donor and Pro-Chancellor of the Annamalai University.

Dornakal, Bishop of, Right Rev. Vedanayakam Samuel Azariah.—Travelling Secretary in South India for the Y.M.C.A., 1896; Associate General Secretary, 1903–09; one of the founders of the Indian Missionary Society of Tinnevelly, 1903; Honorary Secretary, 1903–09; Honorary General Secretary of the National Missionary Society of India, 1906–09; visited Japan as a Delegate of the World Student Christian Federation, 1907, and its Vice-President, 1909–11; Deacon, 1909; Priest, 1909; visited England as a Delegate to the World's Missionary Conference, 1910; Head of the Dornakal Mission, 1909–12; Bishop of Dornakal since 1912; first Indian Bishop in India; Honorary LL.D., Cambridge, 1920.

Hussain, Sir Ahmad, K.C.I.E., C.S.I., Nawab Amin Jung Bahadur, M.A., B.L., LL.D.—Deputy Collector in the Madras Presidency, 1889–92; Assistant Private Secretary to His Exalted Highness the Nizam of Hyderabad, 1893; Chief Secretary, 1896; Assistant Minister since 1914.

